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THE NATIONAL

WOOL GROWER

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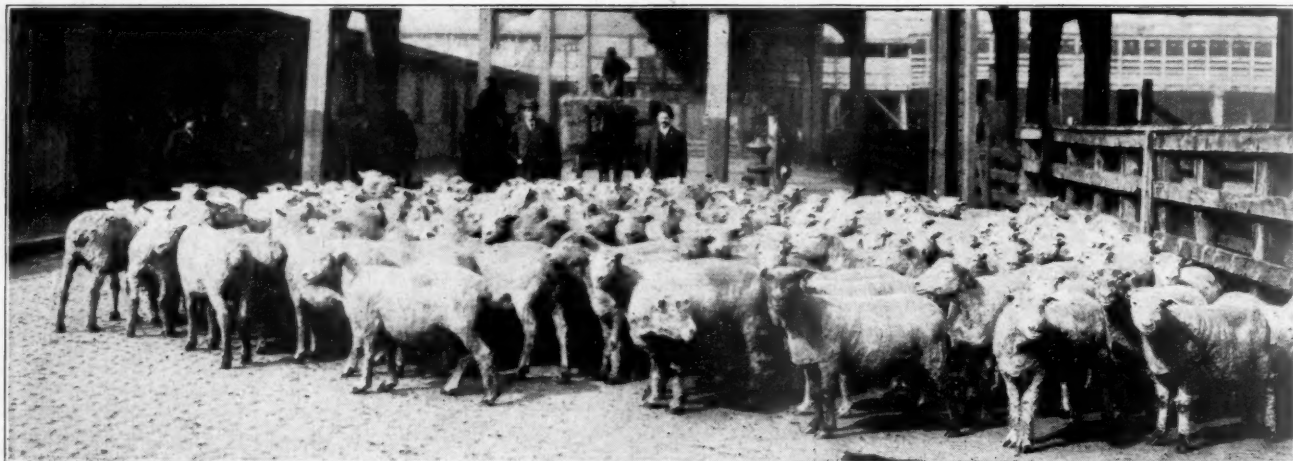
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Hold the Record for High Sheep Sales



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\$8.60 per cwt. for Montana shorn wethers, fed by J. J. Mackay, Mount Carroll, Illinois, and sold March 24, 1910. *This is the highest sale on record.*

**AT
SO. OMAHA**

\$10.45 per cwt. for Mexican lambs fed by Geo. C. Belmont & Co., and sold May 1, 1912. *This is the highest sale on record since March, 1910.*

**AT
KANSAS CITY**

We have just opened a strong house under the management of **Fred O. Morgan**, who has been identified on the leading markets for the past twenty-five years and who is one of the best sheep salesmen in the West. He has made a record for the National; *he will make a still greater record for Smith Bros. Commission Co.*

Consign your next shipment to us.

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3,000 Yearling and Two-year-old Rambouillet and
Delaine Rams for the season of 1912. **3,000**

We have the best *wool* and *mutton* sheep in the United States---
the result of thirty years breeding

These rams are *range*
bred and *raised*, and
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Write us what you
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*You get more net per head for your range
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Our Weekly Market Report and Daily Stock Paper sent to your address, free on application.

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I Am Offering for Sale This Year

2,000 Yearling Rams

Raised on the Range

Big strong, hardy fellows, always ready for service I am going to make prices this year to meet the conditions of the industry. If you are in the market for *pure bred Lincoln or Cotswold rams* this year I would advise placing your order early. If upon inspection, my rams are not satisfactory you are under no obligations to receive them.

ALSO

2,000 Yearling Ewes

Pure Bred Lincolns or Cotswolds

I am offering this splendid lot of yearling ewes for sale at a sacrifice in order to reduce my flocks to meet my allotments on the forest reserve. These ewes have been *raised on the range*. They are hardy and strong and are desirable stuff, either to run on the range or to pasture.

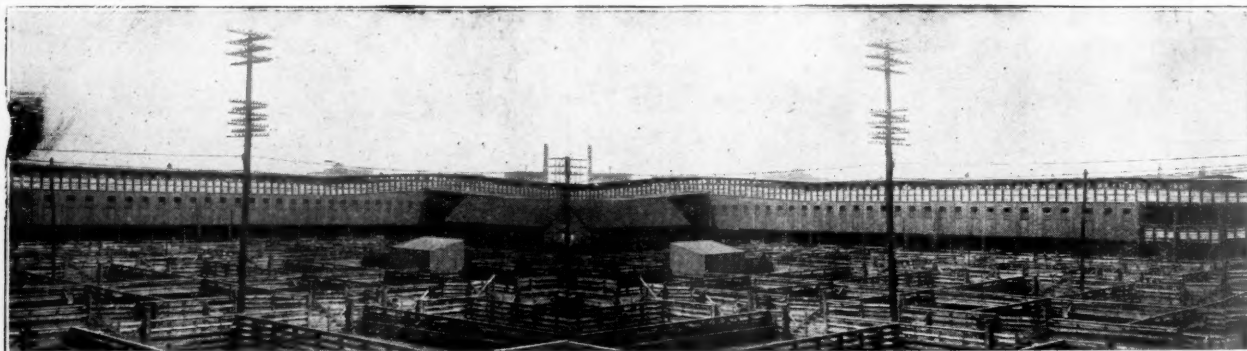
Write for prices on both Rams and Ewes

F. R. GOODING

Gooding, Idaho

Clay, Robinson & Co.'s

New Sheep Barn at Chicago



Important to Sheep Men

Above is shown the sheep barn recently turned over to us by the Chicago Stock Yards Company for our Exclusive use. Capacity of the barn at conservative estimate is 75 cars of sheep per day. We have our own scale, used for no sheep except those consigned to Clay, Robinson & Company.

Sorting chutes are arranged so that two or three cuts can be made simultaneously, saving an immense amount of handling of the sheep and consequently saving much shrink. Each pen is equipped for feed and water. The barn is connected with the old sheep house, and the Stock Yards Company has constructed a special walk from Exchange Avenue to our barn.

The situation of our barn is along the principal unloading chutes for sheep, so they can practically be counted out of the cars direct into our sheep pens. All Sheep can be yarded in pens, not held in the alleys.

The saving in shrink resulting from these improved facilities will be a very important item in favor of our shippers. We are very glad to be able to announce to our sheep trade the realization of our plans, and that we are now able to not only, as always, offer you the best of selling service, but time and shrink saving facilities unequalled on the Chicago market.

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"Successful Sellers of Sheep"

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The National Wool Grower

VOL. II.

JULY 1912

NUMBER 7

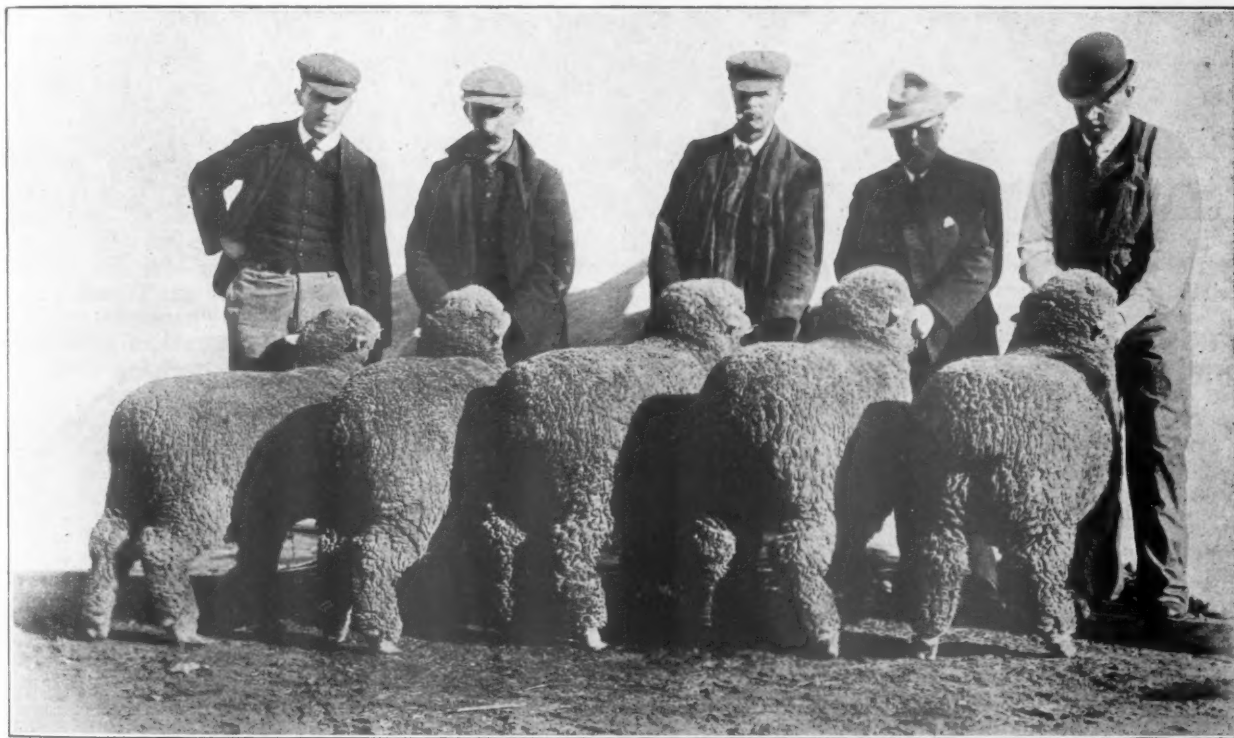
Range Sheep Breeding by the Bureau of Animal Industry, U. S. Department of Agriculture *By Professor E. L. SHAW*

THE question of breeding range sheep is one of great importance to the breeders of the entire West. In spite of the wonderful development of the sheep industry in the West, breeding methods have not been systematic. Many

stock and a failure to attain as high a standard as might otherwise be possible. A majority of the breeders have been breeding for two purposes: First, for the production of sheep adapted for running on the range; and second, for the production of feeding

For the second purpose, range ewes have been bred to rams of the various mutton breeds for the production of feeding or market lambs.

It is believed possible to combine all the essential characteristics, to a marked degree at least, in one type of



WETHERS BRED BY THE BUREAU. NOTE CONFORMATION AND COVERING.

breeders have been making various crosses year after year and in most cases have not made up their minds as to the best methods of breeding for the production of the best type of range sheep, the result of such crossing being a lack of uniformity in the

or market lambs.

For the first purpose, Merino blood of the various types has been used extensively, as the range sheep must be hardy, capable of being run in large numbers, easily herded together, and must produce a fleece of good weight.

sheep, and with this object in mind, the Bureau of Animal Industry of the Department of Agriculture inaugurated the range sheep breeding experiment in co-operation with the Wyoming Experiment Station in the Fall of 1906. The object of the experi-



PURE-BRED RAMBOUILLET RAM. WEIGHT 232 POUNDS. THIS RAM HAS BEEN USED BY THE BUREAU FOR THREE YEARS. PICTURE TAKEN SHORTLY AFTER SHEARING

ment was to develop a type of sheep of good size, possessing a good mutton conformation, hardy on the range, stand flocking in large numbers, shearing a fleece of good weight and of the desired length of staple.

In order to secure a sheep having most of the essentials for the range, fine wool blood must be used. Fine wool blood predominates over the entire range country and is in fact the foundation of the range sheep industry.

In selecting the foundation stock for the Government experiment, large bodied, fine wool ewes were secured. The ewes were mostly of the Rambouillet breeding; some were pure bred Rambouillets, while others were high grades. A few contained considerable Delaine blood. A definite type was kept in mind in making the selections and the ewes were not only of a good mutton conformation but were good wool producers.

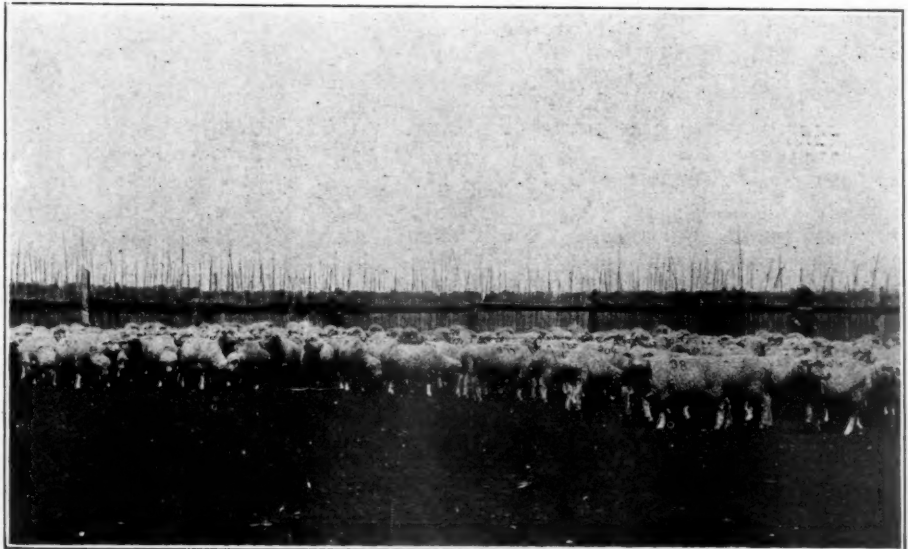
The foundation flock consist-

ed of 250 head selected from the leading flocks in Nebraska, Wyoming, Utah, Idaho, Oregon, Washington and California. Since the experiment was inaugurated, with one exception, a De-

laine ram, pure bred Rambouillet rams have been used. These rams have been selected from the leading flocks in Ohio, Michigan, Wyoming, Washington and California.

Each season, at breeding time, the ewes have been carefully sorted out in several lots and bred to rams best suited in producing the desired type. At lambing time the birth weight of each lamb has been recorded and notes made of each ewe and its offspring. At the time of shearing, record has been kept of each fleece, noting the weight, length, quality and condition. Small samples have been taken each year of each individual fleece and a study made of these, noting the change in the fleece from the same sheep year after year.

That considerable progress has been made in the work with the flock may be shown by the fact that in 1908 the ewes sheared ten and five-tenths pounds per head, while in 1911 the average was thirteen and one-tenth pounds. People who have seen the young stock for the past two seasons have been very greatly impressed with the advance made in the experiment. The 114 head of yearling ewes of the 1911 lamb crop is one of the best lots of young ewes that the writer has ever seen in the West. The Bureau realizes the importance of breeding a type of sheep of good mutton conformation as well as a sheep shear-



FOUNDATION EWES IN THE BUREAU'S EXPERIMENT.

ing a fleece of good weight and good length of staple.

One objection to many of the Merinos in the range country is the fact that they produce too short a staple. The Bureau expects, however, to increase the length of staple in its present type of sheep by selection. The present lot of yearling ewes this Fall will be bred to the best Rambouillet rams owned by the Bureau. With about 300 head of the ewes in the experiment, some cross-breeding work will be started this Fall. Cotswold and other long wool rams will be used, and an attempt will be made to produce a type of sheep more profitable to the Western breeders. A large number of the leading breeders in the West are very much interested in the cross breeding work and the reason that this work has not been carefully carried on before by the breeders is the fact that very few of them have the equipment for handling such a line of breeding.

The Bureau severed its connection with the Wyoming Experiment Station in the Fall of 1910. Since that time, the work has been carried on with F. S. King Brothers Company on their ranch near Laramie, Wyo.

AN EFFECTIVE TARIFF.

Our Democratic friends make much fuss over the tariff on wool and cloth. The public is led to believe that this is about the only Nation that extends encouragement to its domestic industries but so far as we can learn, every country in some form or other protects its industries from foreign competition. Where a tariff proves ineffective to accomplish this result other measures are substituted.

In 1907 Australia passed the Bounties Act which appropriated \$250,000.00 as a bounty to be paid on wool tops made in Australia. Under this Act, on every pound of tops exported the maker is paid a bounty of 3 cents. This amount is sufficient in most cases to pay the cost of converting the wool into tops. If the American top maker is placed in competition with the Australian top maker, it would be unnatural to expect him to survive. In such cases, the tariff stands as the necessary protection to our domestic industries.

BLACK FIBERS.

In Bradford, England black fibers in white wool are considered highly objectionable. This objection is founded on the fact that when white goods is being made a few black fibers in the wool will frequently destroy the cloth for its intended purpose, or at least greatly reduce the price. This objection is very proper as any one wishing a pure white piece of goods would certainly not desire it if here and there black fibers were to be seen running through the cloth. Many times these fibers are not detected and can not be until the finished cloth has been turned out, when it is too late to remedy the evil.

Black fibers seldom appear in Merino wool, but they are quite common in the wool of all the black faced breeds of sheep. The evil here, however, may be abated by selecting sires with this purpose in view.

The common cause of black fibers in wool is the sacking of black and white fleeces together. A black fleece put in the bottom of a sack contaminates the entire sack. As the fleece is shoved down, the black wool attaches to the sides of the sack and later mixes with every fleece that comes along. This is why black wool should always be sacked separately. Black wool has its uses, it is just as valuable as white wool, but it should always be packed in a separate sack and branded accordingly.

FOREIGN PROGRESS.

Australia is not long going to drag behind the rest of the world in development of her natural resources. She is reaching out for foreign trade and is just now experiencing an unprecedented era of railroad construction.

In Queensland alone there are twenty different lines under construction, which, when completed will have a total mileage of 1750 miles. This means the opening up and development of enormous areas of previously unused land among which is to be found immense stretches of excellent sheep grazing land. These new lands will first be domesticated by the sheep and later on the wheat and grain farming will

take possession of a share of them. The sheep, however, will find it a new home for many years to come.

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The American Woolen Company reports that its machinery is now better employed than at any time within two years, and that a part of its machinery better than for seven years. This means high wool.

Argentine Government Proposes Leasing Public Lands of Patagonia

THE Minister of Agriculture of Argentina wishes to introduce a system of leasing public lands in Patagonia on long term leases to sheep and cattle men. The law now directs the selling of the lands and to secure a leasing law it is desirable to show that capitalists would take up the leases. On May 14, 1912, the Minister, Don Adolfo Mujica, wrote to Mr. Bailey Willis: "In accordance with our conversations, you are authorized to invite in the United States proposals to rent public lands in our southern territories. These leases should be on the minimum basis of 200 pesos (\$84.00 United States gold), annually per league (9.6 square miles or 6,144 acres) and for a term of thirty years. As the existing legislation does not permit leasing in this form, it would be necessary, in case the proposals were of importance, to obtain a special law from Congress."

Mr. Willis, a geologist of the United States Geological Survey since 1879, was officially transferred to the Argentine service on request of the Minister of Public Works of that country to make surveys in connection with national railways under construction, and after spending fourteen months in northern Patagonia is in the United States for a short stay on business before going back to continue the surveys. He has prepared the following statement for *THE WOOL GROWER*.

Patagonia, from the Atlantic Coast to the Andes, and from its northern boundary on the Rio Negro to the Straits of Magellan, a distance of 700 miles north and south, is a

An Interview with Mr. Willis

sheep and cattle country, and it must long remain so, since soil, climate and situation combine to limit agriculture to a secondary position. The Argentine government secured an undisputed title to Patagonia in 1902, by arbitration with Chile, and has divided it into three territories, Rio Negro, Chubut, and Santa Cruz, which the government is developing by building national railways and inviting settlement.



TYPICAL SHEEP GRAZING LAND IN PATAGONIA

A railway has been commenced in each of the three territories. The most important is the northern, which starts from Puerto San Antonio, on the Atlantic, is in operation half way across the continent, and is being extended to the Andes, where its objective point is Lake Nahuel Huapi. (See accompanying map). From the Lake branches are run north and south in the valleys within the Cordillera and from the north branch a spur is to meet a line that is being surveyed by Chile to connect with the railways of that country and with Valdivia, on

the Pacific. The transcontinental line from San Antonio to Valdivia will be about 625 miles long, broad gauge, and with maximum grade of 1 1-2 per cent.

This line traverses the Territory of Rio Negro in latitude 41 degrees south, that is, in the southern latitude equivalent to that of central Wyoming north of the equator. The altitude varies from near sea level to 4,000 feet in the plateaus and 6,000 feet on mountain peaks. The climate is semi-arid and temperate, with high

winds. The pasture consists of grasses or edible scrub according to locality. Settlement is limited to a few villages, stores, ranches in Argentine or English hands, and squatters on government lands.

What is thus said of Rio Negro is true of the other two Territories, Chubut and Santa Cruz, except that the railways are not so advanced and the climate is colder. If we compare Rio Negro with South Dakota and Wyoming, Chubut corresponds to Montana, and Santa Cruz to similar latitudes in Canada. But the

extremes of cold are not so great in Patagonia as in the States named in North America, since they are tempered by the nearer oceans.

In giving a more detailed description of certain typical localities, I shall confine myself to the Territory of Rio Negro, where I have spent the past fourteen months in surveys covering all classes of lands.

San Antonio is situated on a large bay which affords secure anchorage and is accessible to ocean-going steamers. There is a strong tide, the shores are low, and vessels are now necessar-

ily loaded and unloaded by means of barges. One Argentine and two German houses do a large business in exporting wool and importing supplies. Water is scarce. Wells and cisterns yield a small supply, which is helped out by that brought in tank cars from a stream, the Arroyo Valcheta, that the railroad crosses seventy miles inland. The difficulty will eventually be overcome by piping the Valcheta water from a reservoir to the city.

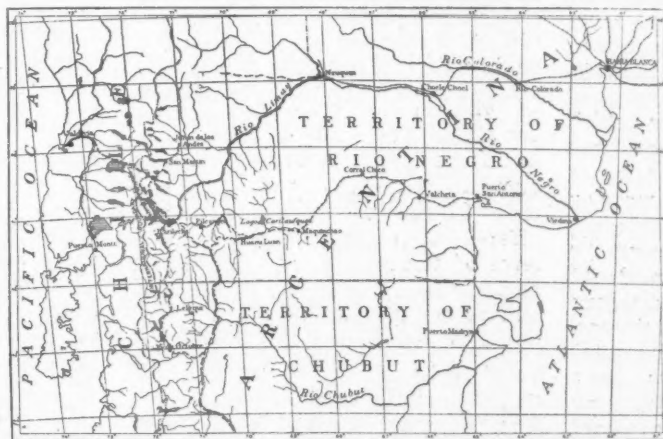
Westward from San Antonio the railroad rises in forty miles some 700 feet to a high plain, having a sandy or gravelly soil and yet a good growth of grass and edible scrub. There being no permanent water on the surface and none within reach of windmill pumping, the plain is grazed only during the rainy months, from March to September, while the many shallow hollows contain water. This is the Winter season, the thermometer rarely drops below 20 degrees Fahrenheit, and herds come in from higher districts. The plain corresponds to certain sandy and gravelly strata that form a zone back from the coast and extend far north and south.

From seventy to 300 miles from the coast the line traverses a region where a number of streams originate in large fresh water springs, flow through swamps, and evaporate from salt lakes. The springs issue from the base of the escarpments of lava plateaus, as they do in Idaho, and have a surprisingly constant flow, which is due to the fact that the Winter snows sink into the open lava and filter slowly to the outlets. Thus the high plateaus are reservoirs and as they receive more snow than the lower lands they yield more water than the official observations of precipitation in the valleys would lead one to expect.

The swamps are due to the rich growth of grasses which flourish wherever water rises to or near the surface. They are extensive in nearly all the valleys and constitute a very important class of lands, locally called "mallin." The soil of the mallin is fine black dust blown from the

basalt plateaus. It is often three to six feet or more deep and is very retentive of water. During wet seasons it is a dangerous bog; as it dries out it affords a very rich pasture. When properly drained the mallins should carry alfalfa and form the backbone of sheep and especially of cattle or horse raising.

Where the valleys are not mallins they are wide gravel plains, carrying a vegetation of rather scanty desert scrub in this interior section that has an average rainfall of eight inches. Ground water occurs generally at ten to thirty feet below the surface. Such plains are extensive between Maquinchao and Lake Carilaufquen, and also between that lake and Huanu Luan.



Their elevation is about 3,000 feet above sea.

West of the central basin district just described, and extending from Huanu-Luan to Lake Nahuel Huapi, is a region of high plateaus, peaks and deep valleys, of which the accompanying view of Anecon Grande is a characteristic illustration. The valleys lie above 3,300 feet, the plateaus from 4,000 to 5,000 feet, and the peaks up to 6,600 feet above sea. The rain and snowfall are both heavier than farther east and the Winters more severe. Valleys are numerous, well watered, and in general occupied by a strip of mallin. The edible shrubs disappear above 3,000 feet, there is no wood except in sheltered canyons, and the pasture consists of bunch grass, "coiron," of which there are several varieties. This district occupies the divide between the tributaries of the Rio Limay and the Rio Chubut and is bounded on the west by the depres-

sion in which lies Lake Nahuel Huapi (2,540 feet above sea). That lake basin and all the other valleys which issue from the Andes were occupied by glaciers at one time and show the characteristic features accordingly, being accompanied by gravel terraces and spreading into gravel plains beyond the foothills. The tributaries of the Chubut that rise in the Andes possess this character. Their outer valleys are sterile and are swept by cold winds; but in the mountains they are sheltered, well watered, and often contain fertile bottom lands.

The Andes in this latitude carry a luxuriant forest, composed largely of the Andean birch, with some cedar and a dense undergrowth of bamboo and shrubs. Cattle feed on bamboo and on rich grasses which spring up where the timber has been burned, as has been done extensively by squatters.

In the zone from the Atlantic to the Andes, between sea level and say, 5,000 feet above it, which is about the limit of grazing, the climate varies widely. In 1909 the Argentine Weather Bureau published a summary of its observations in a work entitled "The Climate of the Republic of Argentina," by Walter G. Davis,

issued in Spanish and also in English. From it I take the following definite data, translating, however, into our customary measures.

As regards temperature: At San Antonio (1902-1907) on the Atlantic Coast—Absolute maximum observed, plus 106 Fahrenheit; absolute minimum observed, plus 12 Fahrenheit. At Norquingo (1903-1905) in the high plateaus—Absolute maximum observed, plus 95 Fahrenheit; absolute minimum observed, minus 11 Fahrenheit. At Bariloche (1905-1907) on Lake Nahuel Huapi—Absolute maximum observed, plus 89 Fahrenheit; absolute minimum observed, plus 10 Fahrenheit. At 16 de Octubre (1898-1907) in the Andean Valley—Absolute maximum observed, plus 98 Fahrenheit; absolute minimum observed, minus 4 Fahrenheit.

As regards rainfall and snowfall (precipitation): At San Antonio on the Atlantic coast—Mean annual pre-

precipitation (1899-1907,) eight inches. At Norquince in the high plateaus—Mean annual precipitation (1903-1907), fourteen inches. At Bariloche on Lake Nahuel Huapi—Mean annual precipitation (1902-1907), forty-three inches. At 16 de Octubre in the Andean Valley—Mean annual precipitation (1896-1907), nineteen inches.

These averages should not be taken as exact indications of the probable rainfall. They are based on short periods, except for the 16 de Octubre, and they fail to indicate the wide range through which the precipitation varies in a period of twelve or fifteen years more or less. Extreme conditions of rainfall or drought may be expected to repeat themselves in some such interval, as far as we can judge from the inadequate data available, and within that larger cycle of change there is a minor one which repeats similar conditions every three or four years. This condition is not peculiar to Patagonia, it being more or less marked in the United States and other countries. It is, however, a fact which must always be considered by the stockmen of Patagonia, where the forage shrinks with the rain and snow and recovers as the precipitation increases. Heavy losses have been suffered by meeting a dry year with all the stock the range would carry during a wet one. 1899 and 1900 were years of excessive rainfall throughout Rio Negro and Chubut; valleys were flooded and dry lake basins were filled. Minor variations have occurred during the past twelve years and in the interior the tendency has been decidedly to dry up the country; on one lake without inflow or outflow the water level has fallen fourteen feet; but the observations of the changes from more to less and from less to more rainfall, which for Buenos Aires go back to 1860, leave no doubt but that Patagonia will continue to experience similar variations.

In general it may be said that taking averages, the precipitation is least in a zone which stretches through Maquinchao, Lake Carilaufquen, and thence northwestward. It is somewhat greater nearer the Atlantic and decidedly greater in the western part of the territory. In the Andes and in Chile it becomes very heavy, as it does for instance in going

from the Yakima Valley to Puget Sound, across the Cascade range of Washington.

The Territory of Rio Negro contains 9,000 square leagues, or 86,000 square miles, of which 1,000 leagues lie in the Andes, and are adapted to close settlement with intensive farming and manufacturing by water powers; 1,000 leagues east of the Andes are too dry to be used, and 7,000 leagues are suited to grazing with auxiliary agriculture in the mallins.

Seven thousand leagues is 67,000 square miles or 42,900,000 acres. One-fourth of this area is in private hands, the balance, say thirty million acres, is public land, which the Minister of Agriculture proposes to lease under a law to be modeled on the Australian land acts. It is proposed that the law shall provide: (1) that the land be surveyed and divided into areas, each of which shall include the various classes of lands, adapted to grazing at different seasons, to be found in a given district, with due regard to waters; (2) that each division shall be offered at auction to be leased for a term of thirty years to the highest responsible bidder. The lowest annual rental or basis at which the lands would be let is fixed by the Minister at 200 pesos in legal Argentine currency or about \$84.00 United States gold per league. A league is the unit of land division and is an area five kilometers, or 3.1 mile on a side, equivalent to twenty-five square kilometers, or nine and six-tenths square miles, or 6,144 acres. The lessee would be required to fence, but should have within his fence, so far as practicable, Summer and Winter ranges, and agricultural lands. The movement of herds across open lands would be controlled with a view to proper sanitary protection, and the nomadic herds of squatters would be eliminated.

The object of the administration in proposing to lease the public lands is to promote sheep and cattle grazing, secure responsible tenants, and obtain a revenue from the lands, with the purpose of capitalizing that revenue and applying the funds to the construction of railroads and other public works. North American capitalists are invited to look into the proposition and in doing so may be

assured that they would be dealing with a strong, firmly established and progressive government.

Appended are certain figures on the present condition of sheep raising in Rio Negro.

Ranches under fence range from 150 to 1,000 square miles in area. The principal owners are English, who are introducing Australian managers. Lands under fence on the natural pasture carry from 1,250 to 1,650 sheep per league. One thousand sheep per league or six acres per sheep is a safe basis for estimate. In an exceptional case with alfalfa, the number of sheep per league on a small area in Santa Cruz reaches 4,000, according to report. Criolla or native sheep sell at 4 pesos or \$1.70 United States gold. They are of Merino stock, crossed with Rambouillet or Lincoln. They yield three kilos, or 6.6 pounds per fleece on the average. One flock of 25,000 improved Criollas sheared this year three and eight-tenths kilos or eight and thirty-six hundredths pounds per sheep. The annual increase is estimated according to experience at 70 per cent of the ewes. Wool sells on the ranch at 40 to 50 centavos per kilo, or 7.5 to 9.5 cents United States gold per pound and has been hauled by mule teams to the coast. The railroad is changing these conditions. Wire fencing costs 25 to 30 centavos per meter, i. e., 10 to 12 cents United States gold per three and one-third feet, or \$160.00 dollars per mile, put up. Labor is the native or paisano, a hardy horseman, generally quiet and reliable within his understanding, when properly managed. Has to be trained to handle sheep well. Wages on the ranches range from 35 to 60 pesos, \$15 to \$25, per month. It is estimated that one peon will care for 800 to 1,000 sheep, at a cost of 3 pesos, \$1.25 United States gold per day for his wages and food, often furnishing his own horses. The administration costs vary greatly according to the manager and the size of the flocks.

BAILEY WILLIS,

U. S. Geological Survey,
Washington, D. C.

This Association needs funds and needs them at once. The wool grower who sits idly by and lets his association die is not worthy of the name.

Sheep in South Africa

(From Report of Tariff Board)

SOUTH Africa is a region long settled, but recently beginning to send to the markets of the world notable amounts of Merino and crossbred wool. When first colonized there were found native races of Afrikaner and fat-tailed sheep without wool. Crosses of these woolless sheep are called bastard sheep.

In 1645 sheep were imported from Europe. In 1680 came Spanish Merino rams. In 1716 a successful shipment of wool was made. In 1775 numbers of Spanish Merinos were imported. Thus Merino sheep were introduced to South Africa nearly 150 years before their introduction to Australia. It is evident that there is some physical bar to their ready acceptance and occupation in Africa.

The sheep seen are often of Afrikaner breed or of Persian or "bastard" crossbreds. The Afrikanders are kept for their flesh; the Persians also yield early lambs, quickly fattened, and a coarse, hairy wool. Merinos and crosses between these sheep and Merinos are also kept. English breeds, though considerably imported, have not yet made much impression in South Africa, and it may be that the climates are not suitable for their successful introduction.

Lands.

South Africa consists of coast lands, tropical in their character and unfit, for the most part, for sheep, with high interior plateaus, 3,000 to 6,000 feet, well grassed, but with grasses usually coarser than sheep relish or thrive upon.

Contrasting Africa with Australia, in South Africa the rains come for the most part in Summer, with little rainfall in Winter. In Australia rains may come at any season. The Winters on the high plateaus are also colder than are seen in much of Australia. In South Africa—Natal, for instance—some Winter feeding must be done.

In Australia but 7 per cent of the land is owned by private owners. In South African States 97 per cent of the land is so owned. The land in

South Africa is not owned in so large tracts as are lease-holds and estates in Australia. Some Dutch farms embrace as high as 6,500 acres. It is usually unfenced and consists of wild, native grasses, with a few maize fields scattered over it. Native negro labor herds the sheep and cattle, corralling them at night to keep them from wild animals and from destroying the crops.

In the Orange Free State the rental value of lands is from 18 to 16 cents "per morgen," an area of approximately two and one-ninth acres, equal to 8 to 30 cents per acre. In Natal the average value of land reported is \$9.73 per acre, but much of this is rather high grade farming land. Lands suitable for grazing and small farming are offered for sale by the Government at from 25 to 40 shillings per acre (\$6.25 to \$10). In Rhodesia the size of farms reported is from 200 to 6,000 acres, the price from 60 cents to \$4.86 an acre. Much of this latter is high grade farming land, near the railroads.

Cape Province.

Land values reported from 24 cents per acre for the very lowest grade of grazing land to \$19.46 for the highest class of farming land. Rentals of Cape lands vary in proportion to the value of the lands.

In the Transvaal (a tract of 5,600 acres), marked "good grazing, well timbered, not much surface water" is offered for sale or lease by the Government at the following terms: Selling price, 63 cents per acre, 20 years' time allowed; leasing price, 5-years' lease; 7 cents per acre for first two years; 15 for last three. In most of the States of the South African Union the maximum acreage any one person can lease or buy is now 2,000 acres.

The present Government is doing much to encourage an advanced agriculture and an improved form of stock breeding in South Africa. This effort is opposed by a part of the farming classes and welcomed by another part.

The various diseases of animals in

South Africa are the worst barriers to improvement. Several forms of ticks convey contagion to cattle. Sheep are afflicted with bluetongue, stomach worms, and in some parts with other diseases difficult to combat. Especially on the lower lying lands is it difficult to grow sheep, or even to grow cattle. Along the coast region are many stock diseases. This condition becomes worse as one proceeds north. There are regions, also, where only the native woolless sheep thrive, and improved breeds will hardly exist. It would seem that sheep will not extend into the north except on the highest plateaus. Fencing will no doubt greatly aid the fight against disease since it will put a stop to its spread, and enable each man to clean his own particular land and flock. Fencing is now being undertaken but is difficult because of the treeless condition of the country. The farmers now use stones for posts.

Maize growing is an important industry in much of South Africa. The exports of African maize are rapidly increasing in volume. American varieties of maize thrive there, and American methods of cultivation are being taught the farmers. It is doubtful if a great sheep-growing industry can be built up in any region adapted to the growing of maize. The reason is that with a climate suitable to maize growing there is a rapid development of dangerous internal parasites that afflict sheep. This fact has important bearing on the probable future of the sheep industry in South Africa.

While Africa has many native sheep that produce little or no wool, yet they are a source of considerable profit because the woolless types thrive and fatten readily and mutton is there commanding a good price. In 1910 Persian lambs five months old sold fat for \$4 each, and ewes fat for \$4.50.

Labor.

There are now in United South Africa many more negroes than whites, and practically all the labor is done by negroes. The quality of

this labor varies; there are shepherds classed as "very good" and more who "need to be watched like children." There is very little immigration to South Africa because the land is so nearly all taken and because white labor cannot compete with black.

Wages in South Africa for blacks on farms are very low. In the Transvaal, for labor and food, per man, about \$120 per year. For shearing, per 100 sheep, the rates are from \$1.25 to \$2.50. In Natal, the wages paid to adult negro laborers is about \$4.87 per month, with food.

In the Cape Colony wages for Kaffirs range from \$2.43 to \$7.30 per month, with food, and sometimes an entire family is employed, when the wages will be about \$5 per month. Just how efficient this labor is in comparison with labor in the United States we have no means of exactly stating. All reports estimate that it is not more than half as effective, man for man. White labor in the Cape Colony is paid from \$14.60 to \$24.30 per month, with board. The white labor is employed for the higher classes of labor, such as overseers and shearers. The Kaffirs are almost the only class of herders used.

In the Orange Free State negro herders are paid at the rate of between \$2.50 and \$3.75 per month, with board; ordinary labor about the farms, \$5 per month, and board.

In Rhodesia native herders are paid an average of \$1.21 per month, with board.

Farm laborers who shear receive from \$9.73 to \$24.33 per month.

The present tendency of the industry is to increase slowly, since in the north it has not been proven that Merino, or, in fact, any sort of woolled sheep will thrive; and along the coast lands no sheep thrive except in the south. At the present time the movement to better the breeding of such flocks as they have is strong. Effort is being made to clean the land of scab and on December 31, 1910 there were 2,866 flocks ordered to be dipped for scab.

The distribution of sheep in South Africa is as follows (1910):

	Wooled	Bastard
Cape	12,500,000	6,500,000
Orange Free St., '09	6,059,813	1,561,249
Transvaal, 1910...	2,019,614	827,464
Natal, 1909.....*	1,068,996	

*Wooled and bastard.

Size of Flocks.

Statistics relative to the size of the South African flocks are not obtainable for all the States.

Of the total of approximately 30,000,000 sheep in the union 19,026,884 are in the Cape Province. An official report covering the sheep in this Province on January 1, 1911, shows that there are 117,646 separate flocks with an average of 161 to each flock. The lamb crop for 1910 for these sheep amounted to 4,840,709, or an average of forty-one to the flock, an approximate 25 per cent lamb crop.

Character of African Wools.

The Persian sheep have a coarse, hairy wool, used as a carpet wool. Crossed with Merino this makes a good crossbred wool, especially the second cross with Merino rams.

Rambouillets in South Africa seem to thrive and retain their excellence of form, but it is stated that their wools do not hold their character there. Australian Merinos change character; also, though their wools are said to be delightfully soft, fine texture, suitable for worsteds. There is tendency of African wools to become short in fiber.

The major part of the South African wools are sent to Germany, France, and England.

Prices of Wools.

The prices received by the growers range from 9 cents to 15 cents per pound. There is some wool good enough to bring 18 cents per pound. This would often be crossbred wool.

Natal produces wool of superior character, quite largely influenced by importations of American Rambouillet and Vermont Merino rams. Here wools have sold as high as 24 cents to 27 cents per pound. All wool is sold unwashed.

Table of Wool Prices.

	Unscoured	Averages for year 1910	Cents
Natal	Per pound		15
Rhodesia	do		12-15
Orange Free State.....	do		12-15
Cape Province.....	do		13-16

Diseases.

Scab is prevalent all over South Africa, together with other troubles due to intestinal worms. At the present time the Government is making a

strong effort to stamp out scab through wholesale dippings, which is meeting with a great degree of success. Losses from disease and drought in the Cape Province amounted to 1,297,496 head in the year 1910, or about 6 per cent.

Droughts.

The climate varies somewhat, but as a rule it is somewhat similar in character to the American Southwest, with periods of great heat and drought followed by seasons of fine rains and excellent feed.

Predatory Animals.

The jackal seems to take the place of the American coyote among the sheep owners of South Africa. Some fencing is done to protect the sheep from their inroads; but for the most part the herders are presumed to protect the sheep from attack as in the United States.

Miscellaneous Costs.

A study of South African conditions shows that the miscellaneous cost under which the sheep grower in that region operates are much the same as in the United States.

Dipping for scab, fighting predatory animals, taxes on his lands (there is no tax on the sheep themselves), shearing expenses, haulage of wool from shearing pens to shipping points, feed to bucks in certain seasons, the upkeep of wells and dams for furnishing water to the flocks, repairs upon improvements, fences, and wagons, are all found in the reports of operating costs from that country, and in general they vary but little from the same costs in America. What variance there is, is due to the lower cost of the labor used by South African owners.

Maintenance.

The carrying capacity of the land used by the South African sheep owner is of much inferior grazing capacity to that used by the Australian grower. It may be compared to that used by the Wyoming sheep owners outside of the Summer ranges, in the mountains.

No Winter or other feeding of the flocks beyond the feed for rams at some parts of the year is reported excepting in the Province of Natal where occasionally some feeding of rough stuffs is done during the Winter.

Taking the South African region as

a whole the cost of maintenance for one sheep for a year is approximately 35 cents, slightly above the cost for Australia, but below that of Western United States.

Shearing.

In Orange Free State the cost of shearing is given at from 11-4 cents to 11-2 cents per head with board. In the Cape Province 21-2 cents per head with board. The average wages paid to the labor required about the shearing pens, mostly native, is 2 shillings (50 cents) per day with board. Graders are now being employed in some sheep shearing pens at wages from \$25 to \$40 per month and board. The average cost of board per day for this kind of labor is stated to be 1 shilling (25 cents).

Taking into account all necessary labor and the board, together with the necessary wool sacks, the average shearing cost per head for South Africa does not exceed 5 cents.

Provisions.

As stated above, the average cost of food for the ordinary native labor employed about sheep farms and shearing pens does not exceed 25 cents per day. The food furnished Kaffir herders and their families consists of two bushels of corn meal, two old ewes, and four pounds of sugar per month—a cost probably not exceeding 10 cents per day.

Sale of Surplus Stock and Mutton.

In the Cape Province fat ewes are reported as selling for \$4.50 per head and fat lambs five months old at \$4. Old ewes are readily sold for local slaughter at from \$2.50 to \$3 per head, according to their flesh.

At the present time the demand for mutton is so strong that there is a good profit in breeding the woolless sheep for mutton alone. Where the sheep combine both wool and mutton the profits must naturally be much greater.

Cost of Production.

The average shearing per head is estimated at six pounds, with an average price received by the growers of 13 1-2 cents per pound.

With an average valuation on breeding sheep of \$2.50 per head and an investment, excluding lands in improvements and equipment per head of not over 40 cents per year, and taking into account the low cost of wages and provisions, the moderate

leasing values of their grazing lands, the mild Winters which do not demand other food for the animals than that found on the ranges, the strong demand for mutton of all classes, it is evident that the African wool grower is able to meet all his expenses from the sale of his surplus stock and mutton, leaving the wool as a clear profit on his investment.

One flock owner in Rhodesia reports he can sell his wool at 12 cents per pound and make money.

Capital Invested.

The value of breeding ewes in large bands is reported to average \$2.50 for ordinary young ewes; crossbreds and grades of the woolless breeds are quoted at from \$1 to \$1.50 per head.

The necessary investment for equipment and improvements upon a leased range capable of supporting 6,000 sheep is reported as follows: Horses and other domestic animals required for handling sheep, \$150 to \$300; fencing, houses, sheds, corrals, wells, dams, pumps, and other equipment, \$2,000; fencing costs between \$200 and \$250 per mile.

This makes an average investment for such purposes of approximately 40 cents per head. Ten head of horses are required to care for, these sheep. One herder for each 600 head of sheep.

Conclusion.

South Africa is a region containing much land adapted to sheep farming. This land seems to be nearly all occupied at the present time, but not fully stocked. There is a probability of some expansion in Rhodesia, though in the north Merinos have failed and woolless sheep seem best adapted to the climate and soil.

The sheep farmer of South Africa has often to combat disease, coarse grasses, wild beasts, and ignorant, unskilled labor. He has the co-operation of his government, but not always of his backward neighbors.

He is importing Merinos from America, Europe and Australia, and is beginning to carry on a far better system of sheep breeding. Both amount and quality of African wools will be increased. The tendency is toward greater output of Merino wools.

Of labor the South African wool grower has plenty at cheap rates, but

of low value compared with labor elsewhere.

Land values and rentals are somewhat higher than in Australia, but lower than in America.

Climatic conditions fairly favorable compared with Australia, but better than in America. Losses from disease and predatory animals with cost of fighting them about the same in South Africa as the United States, but generally much less than in Australia.

Prices for wool for year 1910, from 12 to 16 cents; rates of interest, 5 per cent to 6 per cent—about the same as in Australia, but lower than in the Western United States.

BUILDING MATERIAL FOR SHEEP CAMPS AND SHEDS.

The Colorado Experiment Station has issued Bulletin 174, dealing with the use of clay as a building material. From this bulletin we publish the following extracts and would urge those interested to write for this publication. There are probably many places in the sheep country where clay houses would prove desirable:

An adobe house, properly built, will cost no more than a sod house, and yet be as permanent, attractive, and comfortable as it is possible to build a house. They do not settle after they are dry. Mice do not work in them if they are protected at the foundation. They are superior to concrete or cement block houses in that they are nonconductors of heat and cold. They never sweat or become frosty on the inside, and rain does not wet the walls through as it does in many concrete houses. The labor required to build an adobe house is no more than that required to build a similar house of sod or concrete. * * *

In planning a building of this kind, we should consider the kind of roof to be used and make the dimensions such that it may be covered with the least possible waste of material. The dimensions being decided upon, stake out the foundation carefully. If concrete foundation is to be used it will be necessary to make forms for the foundation. Then set good straight posts in each corner and at intervals of fourteen or sixteen feet on the inside of the wall. Line and plumb these posts very carefully. If desir-

able, short stakes may be used instead of posts until the walls get above the stakes, then these may be replaced by posts as high as the walls are to be. Good, straight 2 by 4 posts are all right. The stakes being lined and plumbed carefully, you are ready to begin the wall.

Now take your sod plow, select a patch of prairie where the grass is thick and tall—if possible (avoid sandy soil), and plow a thin sod. You may plow enough at one time for the entire building, if desired. Select a place for mixing the adobe near your water supply, if possible. With small buildings, it may be desirable to mix the adobe in the center of the building, but it will not pay unless your building is so located that you can not drive around it. Haul your sod and spread it in a circle not to exceed twelve to fourteen feet in diameter. Make the pile about eight inches deep. Now, throw the water on this pile until you think you have enough to wet the whole pile thoroughly. Then get on a horse and lead one or two others, and make the horses tramp around and around, turning very short. If they are allowed to go in a larger circle they will avoid stepping on the higher places. After you have tramped a few rounds you will discover dry places in the pile. Throw more water on these places and continue tramping and throwing on water until the whole mass is mucky. The pile will have a tendency to spread out, and some places will be sloppy while others are not wet enough. Then lead your horses out and take a manure fork (a six-tined fork is best) and throw the outer edges of the mass toward the center, taking care to throw the drier parts to the wet places and vice versa. Tramp again, adding water if needed. It is usually best to throw the edges in the second time in order to get the mass evenly mucked.

If you have been unable to get sod with plenty of grass and roots to form a fiber in the mud, you should add a small amount of straw, hay or trash of some kind. Spread it over the mass after it is mixed as above described, and tramp again until the straw is all tramped into the mud. When the mass is thoroughly wet and thoroughly mucked, and of such a consistency that it can be handled with a manure fork, it is ready to be put into the

wall. Throw this on a wagon or sled, discarding any chunks that may not have been mucked, draw it alongside the wall and place it in the wall with a fork. Drop it into the wall with sufficient force to make it settle together solid, leaving no holes or spaces. Make as thick a layer as you can without its spreading out too wide. Let it spread over the edge of the wall an inch or two on each side. Be sure that the mud comes out to the edge of the wall at all places, otherwise there will be holes, or flaws, in the wall when trimmed. As soon as you have made one layer around the wall, if the weather is hot and dry you may be able to start around again placing a layer on top of the first, being careful to make the mud fit down on the first clear out to the edge of the wall to prevent flaws. When you have a layer about twelve inches thick, let it stand until it is firm, but not dry. Select a board with straight edges, fourteen to sixteen feet long, and as wide as the thickness of the wall. If the wall is to be more than twelve inches thick, two boards of the proper width may be cleated together to make the required width. Lay the board on top of the wall with one edge against the posts, get upon the board and trim straight down each edge of the board with a hay knife. When the walls are trimmed all around in this manner they are ready for another layer of mud. Continue until the walls are the desired height. Never allow a layer to become hard before it is trimmed, or you will have a hard job.

The rapidity with which this work may be pushed depends upon the weather. If the weather is hot and dry you may be able to make an average of six inches per day from start to finish. Some days you may put a foot and then let it rest a day or two. If the weather is cool or damp, the work will go correspondingly slower. In early Spring or late Fall the work is very slow, and one should not attempt to build adobe in Winter.

Keep watch of your walls. If they are not drying rapidly, you had better lay off a day and allow the walls to dry. It is a very good plan to build two or three feet and then let it stand a week or so and then build two or

three feet more, and so on until the wall is done.

The frames for doors and windows may be put in place and the mud built to them. But a better way is to trim the openings for doors and windows and fit frames into the openings as soon as the walls are as high as the frames are to be. These frames should be of two-inch stuff. The top of the frame should be as wide as the thickness of the wall and should extend into the wall a little. When the frames are in place you may build over them with the adobe. The walls will shrink in drying and draw away from the frames a little, leaving a crack. These cracks may be plastered up with a trowel.

If the roof is to be of shingles or iron it will be necessary to anchor the plates to the wall to prevent the roof blowing off. This may be done by putting fourteen-inch bolts through short pieces of 2 by 4 and planting them in the walls as you build so the top of the bolt will just reach through the plate. If adobe or sod roof is to be used the weight will be sufficient to prevent blowing off. The roof should be leak proof to prevent water running down the walls and softening them.

FOREIGN HIDE MARKETS.

We note in the April issue of *Dalgety's Review* the following prices for sheep skins in Australia:

Sound Merinos.....	12 to 12½c	per pd.
Seedy Merinos.....	10 to 12	c per pd.
Lamb Merinos.....	10 to 12	c per pd.
Cross Breds.....	10 to 14	c per pd.
Cross bred Lambs...	6 to 10	c per pd.

The same authority quotes the following prices for rabbit pelts in Australia:

Best Bucks.....	20 to 22c	per skin
Thin pelted Bucks...	18 to 22c	per skin
Dry Does.....	18 to 22c	per skin
Milky Does.....	10 to 14c	per skin

The trade in chilled rabbits between Australia and the Continent of Europe has grown to such importance that a large trade in rabbit skins has likewise developed. A few years ago these skins were worth only from 2 to 3 cents a pound, but this market quotation indicates a decided advance in prices. We are also glad to note that the price of sheep skins in Australia is practically the same as in this country; if anything, a little higher.

The Hampshire Sheep

THE ridge lands lying south of London are called the South Downs, and the sheep upon them are named from the

hills upon which they fed. Reared upon a soil that furnished but scanty herbage they were small in size but compact in form and were noted for the excellence of their flesh. Their home was in Sussex. As the chalk lands extended westward into Hampshire, Berkshire and Wiltshire the soil becomes deeper and more fertile affording better pasturage and heavier cultivated crops. As a result of this the sheep upon these lands were larger, coarser and stronger than the South Downs. Through centuries of neighborhood existence the sheep along the border lines of these territories very naturally merged together so that a well defined division was impossible. We therefore find in the earliest accounts of the Hampshire sheep that those in the eastern and northern sections were **more compact and symmetrical** in form, with finer wool than those in the western portion. Gradually it becomes apparent that each of these types had its peculiar value, the smaller, along with its symmetry of form and its superior fattening qualities, while the larger were vastly more prolific and had greater hardihood of constitution.

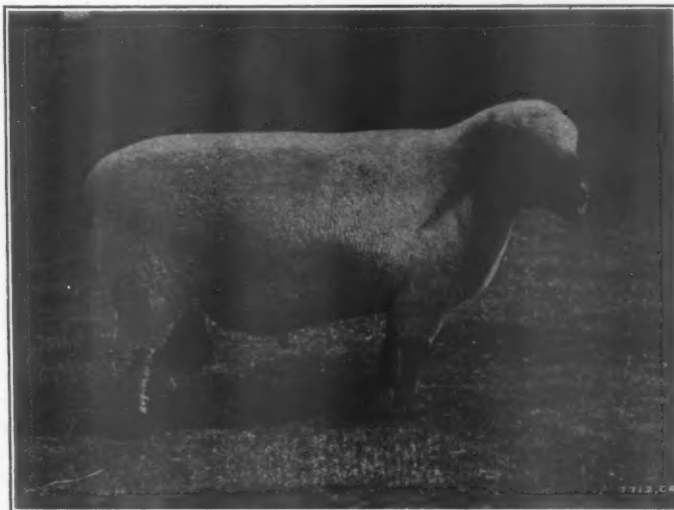
Intelligent observation soon told the sheep raisers of this country that where blood of the South Downs had been long merged with their large and hardier neighbors the flocks were best adapted to the ends desired. That while these flocks carried much of the symmetry, closeness of fleece and aptitude to fatten of the South Downs they far surpassed them in early maturity, constitutional vigor, freedom from disease as well as prolificacy. There were thus clearly indicated the lines upon which the desired improvement must be made. This improvement was carried on by the farmers themselves and was extended over the contiguous counties

By COMFORT A. TYLER, *Secretary American Hampshire Sheep Ass'n.*

of Hampshire, Wiltshire and Berkshire and their selections were made with great intelligence. As was quite natural, different sections had somewhat different ideas and thus for a time bred to types entirely lacking in uniformity, but it was not long ere it was pretty clearly demonstrated which were most desirable. In Wiltshire more use was made of Southdown blood than in Hampshire and when the changed condition of agriculture favored the quick production of a heavy mutton carcass the Wiltshire farmers found their flocks de-

ers in every advancement among men. Foremost among those who were leaders in this improved Hampshire movement was Mr. Humphrey of Oak Ash, Mr. Rawlence of Bulbridge, Mr. Morrison of Fonthill and many others. To the fact that the farmers themselves have made these marked improvements rather than a few wealthy breeders, is also owing to the further fact that there is to-day a greater uniformity among the flocks of the whole Hampshire region than in any other of the Down breeds. It seems quite evident that the improvement made is largely along Southdown lines. Mr. Woods says that among 33,000 Hampshires examined in one

day at the Illsley fair in Berkshire that while some flocks were of course better than others there were none that were not clearly of the Hampshire type and all were of remarkable excellence. The blood of these two divisions were already so closely related that the course pursued cannot properly be called a cross. It is simply an admixture resulting from centuries of co-existence. Let us consult the authorities for a moment. Charles Henry Hunt in his "Practical Treatise," published in 1809 described the sheep of Wiltshire and Hampshire as having no other admixture of English blood. Wm. Youatt in



THE HAMPSHIRE

ficient in vigor of constitution and early maturity as compared with those of their neighbors and they wisely resorted to the use of Hampshire rams to restore and improve upon those valuable qualities they had lost to a degree. We find many statements of the attention that was given to the proper balancing of the strains. Wilkinson in "The farming of Hampshire" said: "The hard-working qualities, the hardy constitution and superior size of the one has been combined with the smaller limbs, shorter legs, broader backs, rounder barrel, more compact form, increased flesh and kindred qualities of the other." There are always lead-

his "Sheep," 1835, says: "The Blackfaced sheep of Hampshire are a cross between the black faced sheep of Hampshire and Berkshire and the pure Southdown." Robert Smith a noted breeder in a prize essay in 1847 says "The Hampshire downs were originally very large and coarse but of late years have been improved by an admixture of Southdown blood still they retain an extra degree of size, bone and fleece as compared to any other and are easily distinguished by these characteristics. Breeders who prefer a strong sheep consider this variety better than any other for enduring hardship and for general purpose

farmers." The same writer in the *Royal Agricultural Journal* in 1858 said: "The Hampshire sheep are clearly descended from an original hardy race peculiar to the country. Their strength and constitution have been retained and are characteristic of the animal." John Wilson, Professor of Agriculture in the University of Edinburgh, in his report on British sheep published in 1855 in speaking of Hampshire said: "This rapidly increasing breed of sheep appears to be the result of a cross between the pure southdown and the old horned sheep of Hampshire and Wiltshire by which the hard working though fine quality of the former is retained with the superior size and constitution of the latter. The breed was begun in the early part of the present century and by a system of judicious crossing now possesses the leading characteristics of the two parent breeds." James Rawlence in 1858 wrote: "About the beginning of the present century the sheep breeders of Hampshire began to bestir themselves and enterprising farmers procured rams from Sussex of the southdown breed care being taken to secure the largest and blackest faced rams." Wm. Humphrey in 1858 wrote: "In forming my flock I purchased the best Hampshire down ewes I could get also the best rams I could get of the same kind," and afterwards described how he purchased Southdown rams of the noted James Webb flock and used them with advantage to his flock. In Wilkinson's "Farming of Hampshire" published in 1861 it is said: "The Hampshire downs are the glory of the country as respects live stock. The peculiar points of excellence are well noted by all observers." Many other writers of note of whom we might mention, Mr. Norton, long editor of the *Agricultural Gazette*; Mr. Coleman, editor of the *Field*; Mr. McDonald, editor of the *Mark Lane Express*, have repeatedly made similar statements. The matter is of importance because the remarkable prepotence of the Hampshire which is every where recognized can be accounted for only upon the fact of the distinctly local origin of the breed. By a wise system of breeding and by skillful management the Hampshire Down has been brought to his present state of perfection. He now illustrates

what breeders can accomplish in preserving vigor of constitution and general hardihood, and in adding to them the desirable qualities of early maturity, disposition to lay on flesh with fat and lean properly intermingled, and symmetry of form with a most valuable and useful fleece for wool. His head is rather large with a slightly roman face, neck long and usually well set on, shoulders sloping brisket deep with abundant room for the vital organs, back straight with a good spring of rib going well around the barrel, loin broad, quarters long and broad, hams round and heavy, legs bony and strong, feet large and open with a tough sole and crust. The face and legs are the blackest of any of the Down breeds. Gray faces are not even permissible at the present time. The wool is of medium length and of very strong fiber. It is largely used for making cheviots, tweeds and such business cloths and always commands top prices. Flocks of breeding ewes should average from seven to twelve pounds per fleece; mature rams often weigh 300 pounds or better and ewes something over 200 pounds. Let us now for a moment consider the peculiar advantages claimed for the Hampshire at the present time. First and above all others I would place constitutional vigor. The rearing of the Hampshire since time began has always been under such natural conditions and exposure of food that their constitutions are remarkably sound and strong and in no sense of the word delicate. Therefore it is that they are singularly free from disease and maintain their health and vigor as do few other animals in heat or cold, in drought or storm, in short feed or plenty, whether closely confined or allowed free range. Associated with this hardihood closely is prolificacy. The writer knows flocks of ewes that have averaged for more than a half dozen of years a lamb crop of 175 percent. As a result of their hereditary constitutional vigor the young are remarkably strong at birth are quickly upon their feet and ready for "business". The ewes are excellent mothers and immense milkers oftentimes having udders like small cows. Ewes breed to a great age and then fatten well. Based upon their natural

vigor is the claim that a Hampshire ram will serve more ewes satisfactorily than any other known breed. I would next mention the rapid growth early development and excellent fattening qualities of the Hampshire lambs. These are so well known that they are continually referred to by miscellaneous writers for illustration and comparison. In describing the sheep at a recent Royal show in England the *London Live Stock Journal* said: "In the sheep department the coveted distinction of Champion was won by a trio of magnificent ten months old Hampshire lambs a victory which will do much to accelerate the growing popularity of this eminently valuable and practical breed. There can be no question but that this breed is coming to the front as no other known breed at the present juncture." The *London Times* said: "Those really marvelous Hampshire-down wether lambs at about ten months old have the growth, appearance, back, rump and legs of adult sheep." Their live weight being 214 pounds per lamb Mr. Norton, editor of the *Agricultural Gazette*, writing in an article headed, "The Coming Sheep," said: "There is no breed in England or in the world that can vie with it in the production of large sized lambs. Let any unprejudiced person attend the ram sale in July near Salisbury and if he has never before seen Hampshires he will be astonished." The rapid growth of the Hampshire is simply owing to the fact that with their constitutional vigor they are able to eat, digest and assimilate a larger amount of food than others and they respond to it. I will next mention the quality that gives to the Hampshire-Down perhaps his greatest practical value, the one which above all others commends him to the average American sheep raiser—his extraordinary prepotency, i. e., that power which enables him to stamp with unerring certainty, his own characteristics upon his offspring. This is of especial value when he is used as a cross upon other breeds either for selling at the shambles, the first cross, or for breeding up a mutton flock with utility in the fore ground. The surpassing excellence of the Hampshire cross is well illustrated by the fact that at all

of the great English shows the prizes for cross bred sheep almost invariably go to those with Hampshire blood. Blood suited or cross breeding is greatly needed in the United States. Our flock masters must perforce of necessity in the future give more attention to mutton and less to wool. Their flocks can only be improved in this line by using the best of pure bred sires from the best of the mutton breeds. None so well as the Hampshire are adapted for this purpose. The value of the Hampshire cross is forcibly illustrated in the Oxford-Downs which were produced by a crossing of Hampshire and Cotswold bloods. Another point

of excellence in the Hampshire is the extra quality of the flesh. The fat is advantageously distributed through the lean so as to result in a minimum of waste. Each of the down breeds have their excellencies, but for a combination of hardiness of constitution, freedom from disease, ability to withstand grief, whether of exposure or shortness of feed, general useful qualities, excellence of flesh, value of fleece, strength and vigor of lambs, their quick development and fitness for market, motherly qualities of the ewes, docility and prepotency, when crossed upon other breeds, or common stock it may well be doubted if an equal to the Hampshire can be found on the face of the earth. He has

proven himself not only an Englishman's sheep but an American's sheep as well. He fits every where, he is always "working at is trade"—i. e. making mutton the best to be had. He is the poor man's sheep, he is the rich man's sheep. He is the gentleman's sheep, he is the lady's sheep. He is no "respector of persons," he will work anywhere any time—all the time. This is the testimony of a thousand men on a thousand hills. If you don't believe them buy a few Hamps and try them for yourself, then you will write and thank me for calling them to your attention. I long live the Hampshire and may his tribe "increase and multiply."

A Sheep Industry Overlooked

FOR several years I have been considerably disturbed because there is a sheep industry in the Middle West that is overlooked when the relative importance of sheep is under consideration. I refer to sheep and lamb feeding. We, who stand for sheep in a commonwealth like Illinois, are constantly confronted by such remarks as "This is not a sheep state," "Our land is too valuable for sheep," etc. These conclusions are about as comforting as a deluge of ice water and we have to hunt for something to bring warmth to our chilled souls. Nothing thaws me out quicker than a contemplation of the sheep feeding business.

It has frequently struck me as strange that the fellow in the corn belt who feeds out western sheep and lambs gets little if any credit as a producer of sheep. It seems as though he is not thought of in that light. If he were, possibly he would get the credit for it. Am I dreaming when I contend that he should be counted in with the sheep men? Perhaps I am, but before I am dismissed as one possessed of a wild imagination I want to have my say for my contention.

In the corn belt sheep feeding refers almost entirely to the handling of western sheep and lambs, and the number of lambs far exceeds the number of old sheep. Lambs are

By Prof. W. C. COFFEY, *University of Illinois.*

sought for various reasons the most obvious of which are that they make more economical gains than older sheep and they are preferred by the consumer. They are kept on the corn belt farms for periods varying from 2 to 8 months. They are handled under many different systems. In most cases they are brought in to feed on the aftermath in stubble fields, on the stalks in corn fields or to graze over fall growths of blue grass. It is the hope of the feeder that the lambs will utilize and turn into a profit what otherwise would be considered waste. But it is not possible to finish lambs on these waste growths. Some harvested feeds have to be supplemented and hence each lamb or sheep feeder has to spend something on his animals before he can send them to the market fat. If he were to do all of his feeding in the dry lot, he would have to feed approximately 125 pounds of shelled corn and the same weight of hay per lamb to finish them in a period of 100 days. With corn selling at 56 cents per bushel (70 to 80 cents now in Illinois, and alfalfa hay at \$16.00 per ton (\$25.00 now in Illinois) this is an expenditure of \$2.25 on each lamb in feed alone. The man who has the lambs to gather up what otherwise would be waste feeds at least 125 pounds corn per head. When

a man spends from \$1.25 to \$2.25 per head in feed alone on each sheep or lamb he handles should he not be counted amongst the sheepmen of the country?

Many feeders in Iowa, Illinois, Michigan, Ohio, etc., keep their lambs from six to eight months. Suppose lambs born in May reach the corn belt farms in November and are sent on to market the following May or June. Before they are marketed they are sheared and the feeder has two crops to dispose of. By the time the lambs are sold they have been in the hands of the feeder half or more than half of their life time. When those lambs reach the market fat, has the westerner who drove them out of the mountains any more claim as the party who produced them than the man who fed them on his corn belt farm? Have they been any more significant to the western man than to the man of the middle west? Do they contribute any more to the live stock industry of the west than to that of the Middle West? Assuredly not.

Iowa, Illinois, Indiana and several other commonwealths of the Middle West are much more engaged in the sheep business than statistics show. And those parties who feel that the sheep industry is of importance only to a comparatively few in the West surely have made a very superficial examination of conditions.

It is well known that the practice

of feeding western sheep began with parties who brought them into such sections as St. Paul, Minnesota, where mill screenings were available at a very low price. They were placed in dry lots and fed nothing but purchased feeds. In most cases the manure was wasted. So long as sheep feeding was handled in this manner it was not of much significance to the Middle West. But farmers saw an opportunity in the practice and began to bid against the big operators. They pushed prices for feeders and feed up to such a point that the fellows who started the practice were obliged to quit. The farmer had the advantage because the sheep and lambs did a large part of their own harvesting, they consumed what otherwise would have been wasted, and they conserved the fertility of the soil.

When sheep feeding fell into the hands of the farmers it attained its true significance to the Middle West. In Michigan lands apparently worn out from long continued wheat farming were restored and even made "to blossom as the rose." With the Michigan farmer the profits from the western lamb were both direct and accumulative, and were they to discontinue feeding they would still realize profits from the lamb thru fertility stored in the soil. The story is the same wherever sheep or lamb feeding has been conducted on lands depleted in fertility. And in those cases where they were not, the sheep manure has been a potent factor in maintaining fertility.

Various adversities coming to Western sheepmen make us feel doubtful as to a continued normal supply of feeder sheep and lambs. We shall not know our misfortune until the normal supply is cut off. If that is what occurs, I think we shall hear our farmer feeders saying, "What shall we do, we have just fairly got into the business of feeding lambs so that we can make it sufficiently profitable to feel safe at. Now, we cannot secure feeders, what shall we do?" Then is when the fellow in the Middle West will realize that he overlooked the fact that he was once identified with the sheep industry, and that they who preached that the industry was of significance only to a few Western sheep barons made a grievous mistake.

CLOTH TRIMMINGS.

In making a suit of clothes cloth is not the only expense as certain trimmings are indispensable. For instance, a tailormade suit of the best quality that would retail at say \$40.00 would require 1 5-8 yards of serge lining costing \$1.25; 1 1-2 yards of vest and sleeve lining, 25 cents; 1-2 yard of hair cloth, 50 cents; 1-6 yard of padding, 75 cents; 1 1-4 yard of canvas, 35 cents; 1 yard of pocket lining, 20 cents; trouser lining, 15 cents; buttons and buckles for trousers, 20 cents; buttons for coat and vest 15 cents, making a total cost for the trimmings of \$3.80.

CANADIAN STIMULATION TO SHEEP INDUSTRY.

Hon. Martin Burrell, Canadian Minister of Agriculture, has appointed Professor T. R. Arkell, Professor of Animal Industry in New Hampshire Agricultural College, to examine into the general condition of the sheep industry in Manitoba, Saskatchewan, and Alberta. Professor Arkell is a Canadian and a graduate of Guelph Agricultural College. He has made a specialty of the question of sheep breeding and the wool industry.

Professor Arkell proceeds to Lethbridge about June 12th to start work. He will not only investigate conditions, but he will give his advice and assistance in such matters as shearing, dipping, preparation of wool, shipping, and other matters.

Mr. Burrell's whole policy is for close co-operation with the Dominion Sheep Breeders' Association on a broad scale. Col. McCrae, President of the Dominion Sheep Breeders' Association, has been appointed by Mr. Burrell to go to British Columbia to study the industry there and to inspect and report on districts most suitable for sheep breeding. Dr. Tolmie, livestock Commissioner for British Columbia, will be associated with Colonel McCrae in this work. Colonel McEwen, President of the Ontario Sheep Breeders' Association, will go to the maritime Provinces on a similar mission—Montreal Gazette.

Statistics of agriculture show that the number of sheep in Canada declined from 3,155,509 in 1871 to 2,792,200 in 1911.

Canada imported in the fiscal year ended March 31, 1912, for breeding purposes, sixty-five sheep worth \$760 from Great Britain and twenty-three sheep worth \$1,075 from the United States. Of sheep for consumption the imports were all from the United States, viz: 192,530 head worth \$578,055, while the imports of fresh mutton and lamb were 3,950,462 pounds worth \$299,600, derived nearly in

equal proportions from the United States and Australia.

In exports, Canada shipped in the year named only 21,783 sheep worth \$125,443 and 49,312 pounds of mutton worth \$4,201, whereas in 1907 Dominion sheep exports to the United States alone exceeded \$1,000,000 in value.—Trade Reports.

RESULTS OF ORGANIZATION.

The Holstein-Friesian Record Association at their annual meeting in May reported a balance on hand of \$145,000.00. This is an Association with less than five thousand members engaged in promoting the interests of the Holstein dairy cow, and through its co-operative efforts, the merits of the Holstein cow have been made known to every agriculturist, and the end is not yet.

What could a Wool Growers Association do with \$145,000.00 in its treasury? It could carry to the users of woollen clothing the one truth that cloth made from American wool will wear from 25 to 50 per cent longer than if made from imported wool. It could convince the American people that mutton is the cheapest and most healthful of all meat foods and therefore the best. It could prove to the public that the tariff upon wool is not a tax but is in the interest of good sound public policy. It could educate our wool growers how best to prepare their wool for market and assist them to receive the actual market value of their product. It could secure the passage of laws needed to protect the sheep industry in every State of the Union. In fact, it could do every proper thing to give the sheep industry of our country the honorable standing that its true worth entitles it to.

How could the National Wool Growers Association get \$145,000.00? Simply by collecting 24 cents from every wool grower in the United States.

The American Woollen Company recently published an attractive booklet entitled "From Wool to Cloth." This deals with the various processes through which wool passes on its way from scoured wool to cloth. It is an attractive and instructive pamphlet and may be obtained on application to their New York office.

Shropshires on Their Merit

IN TRAVELING over the farming districts of any country, we may instantly measure a farmer's industry and success by a glance over his farm property, for no farmer can make a thorough success of his farm and remain indifferent to even the most insignificant conditions connected with his property. And if he is a success, he has a superior farm, for the betterment of which he buys the best the markets offer. In return he sells the best products to the market, and, in fact, desires to handle only that which merits the interest and demands the attention of a man bent on success.

It is the belief of sheep-breeding men that no farm is complete without a flock of sheep, for were they a drag on the mutton and wool market, they can clean up a field even to the fence corners of every kind of plant life, and at the same time fertilize the land they pass over, in a manner not equalled by any other farm animal.

Every successful farmer knows that a flock of good sheep means so much gold to his bank account, if he keeps his eye on the sheep and on the market.

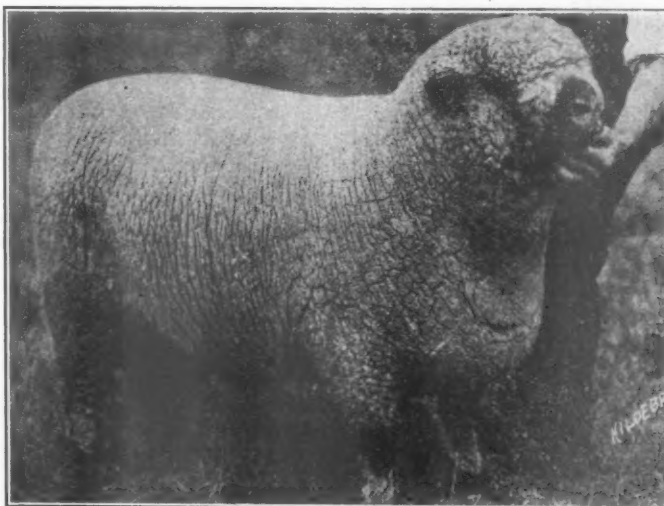
If it is true that every tenth person in the United States is foreign clothed; if it is true that, while the population of these states within the past ten years has increased with astonishing rapidity the production of sheep has suffered a diminution; if it is true that the other breeds of live stock in the United States are practically, even now, inadequate to supply at a reasonable price, our present meat-eating population; could there be any better reasons why more sheep should be raised and the breeding of the sheep become more general among our farmers?

As among men in every other line of business, so has there always been among the sheep breeders, a difference of opinion as to the relative values of the different breeds of sheep.

By JULIA M. WADE, *Secretary American Shropshire Registry Ass'n.*

Some men advocate the raising of a large or a small type; a long-wooled or a fine-wooled variety; or possibly, it is only the mutton quality which interests the owner. There is also the man who wants some or all of these good qualities bred together in one sheep.

Of course it was away back, many centuries ago, when men first began experimenting with cross-breeding, and, never quite satisfied with the results produced, they have continued to experiment on down through the ages.



A TYPICAL SHROPSHIRE.

A general purpose sheep was what the farmers most desired and what the experiments in cross-breeding finally produced.

In the old English histories and agricultural records of somewhere in the early part of the fourteenth century, you may find the first mention of the Shropshire breed. Not that it is written of as "The Golden Fleeced," the familiar reference of to-day, but there is no doubt in the minds of our expert judges of later days that our beautiful farm favorite is a descendant of the "Morfe Common" sheep which were described as "a black-faced, brown or spotted-faced sheep of moderate size with horns." Al-

though, as we know, the horns were afterwards eliminated from our standard of type, some of our best known breeders of to-day are still struggling against the appearance of horns among their better rams.

Another breed, believed to have been ancestors of the Shropshire was known as the Cannock Chase sheep, "a very old race having dark faces and points."

As an individual breed, however, the Shropshire was not acknowledged until about 1850. From this period may be traced a marked increase in the interests of sheep breeders in the sweet-mutton wool producers, and in less than ten years succeeding that date the Shropshire was awarded the sweepstake prize at the Great National Show at Salisbury, England. This was soon followed by the Royal Agricultural Society honoring the now popular breed by awarding a place on their "Prize Sheet," thus granting the much sought after recognition as a distinct breed.

The beautiful animals now became the leading attraction among sheep exhibits at the large and small shows. They had proved to be hardy (being subjects to fewer diseases than other breeds) and producing strong lambs in unusual number. They were also gentle and easily handled.

The first importations to the United States were made between the years 1850 and 1855 and at once attracted the attention of our farmers.

Here was a type of sheep with strong constitution; a mutton-carrying, wool-producing, quick fattening animal; a sheep to introduce to all the world as the best general purpose sheep and the best farmers' sheep.

No breed of sheep mature as early as does the Shropshire, its fecundity is very remarkable, and, with wise handling of the flock practically 50 per cent of the ewes will produce twins, some triplets, and even quartets.

The ewes make excellent mothers as a rule, and under favorable conditions, the lambs, which are good feeders, will attain a weight of from 55 to 60 pounds at six months of age, and if you keep posted on the markets you will find that a fat Shropshire lamb will sell on the market quicker than that of any other breed.

The quality of Shropshire mutton is in every way superior to that of other breeds while the weight of the carcass often equals that of the larger breeds.

The quality of the wool while termed "medium" is really considerably above a medium in our first class Shropshires and it grows compact and slightly crimped over a bright pink skin-covered body and on part of the face and legs.

One of our middle states' farmers wrote to a leading live stock journal of his foundation stock in this way: "We sheared an average of 13 1-4 pounds of very fine wool from our imported Shropshires and got two cents more on the pound than any other wool around here sold for."

The general average fleece of a Shropshire will weigh from ten to thirteen pounds.

Reports throughout the Shropshire world will show that at fairs and exhibitions the sweepstake and Champion prizes are awarded to sheep sired by Shropshire rams, and at the English shows today the exhibits of this popular breed more than double the exhibits of all the other breeds put together.

It has been very truthfully said that while the sheep industry has had its ups and downs there have been more breeders who have succeeded than those who have failed.

To the man about to embark in the sheep business we would offer some suggestions, which, drawn from the experience of thousands of others, as well as from things we have learned through years of contact with the pure bred records, may be of value to the farmer striving for success.

Remember that success is always associated with intelligent business management and an accurate business system.

Men old in the sheep business often advise beginners not to start with a large flock unless the owner's time and personal attention can be de-

voted to the sheep and unless the beginner has the assistance of several very competent helpers.

1. Buy only registered Shropshires or lambs eligible to registry for your farm, and secure the proper "Certificates of Registry" showing the necessary "transfer" and (in the case of ewes) see that the reverse side of the certificate of registry gives statement of service.

2. See that the marks in the ears of the sheep correspond with those indicated on the certificate. As soon as you receive the certificate of registry and the transfer from the party of whom you make a purchase, send both papers to the Secretary of the Association so that the sale may be placed on record.

3. Do not use a sheep for breeding purposes until you have the proper papers in your possession.

4. Keep a careful and correct private record of your pedigrees, sales, purchases, rentals, etc.

5. Place the proper tags in the ears of your lambs and sheep as early as possible, and in case such tags are lost replace them with an exact duplicate without delay.

Every man's business transactions are his best advertising medium. Make your customers your friends. Do not cultivate a feeling that as soon as you have a man's money the obligation is ended.

Show an interest not only in your own flock but in that of your neighbor.

Take a hand in organizing a "State Shropshire Association" so as to keep in touch with other breeders, and see that the state association keeps in close touch with the American Association. This method will prove of incalculable value to both the association and to the individual members.

Reports from all over our country go to show that the lambing season for 1912 has left nothing to be desired, and some of our oldest breeders are predicting a "boom" in the Shropshire business the coming fall.

While a "boom" would be very acceptable to many breeders, it is the push and steady growth which tell in the end, and it is this perseverance which has given to The American Shropshire Registry Association its forty-four hundred and odd members

and its twenty-six volumes of Records showing more than 360,000 registrations.

Many requests are made for the "history of the Shropshire" and the Association is fortunate in being able to respond with a collection of authentic material concerning the ancient history as well as interesting facts of more recent date regarding the breed.

But it is not with that which is already history to which we should devote our time and thought, it is to the history your flock is to make this year, and next year, and for many future years, for the Shropshire perfect is yet to be produced and the greatest era of the breed lies in the future.

June 11, 1912.

To the Editor:

I am a native of Greece, now a resident of this city.

For my whole life I have been engaged in the manufacture of Head (cheese) Romano (cheese) Romanello (cheese) and white cheese produced from sheep's milk.

These cheeses are not made in this country (and we import same from abroad), but can be manufactured, and very profitably.

I want to get in contact with some large sheep raisers with a view to obtaining capital and assistance to introduce this business in the United States. Can you advise me?

Hoping to hear from you I beg to remain. Very respectfully yours,

CONSTANTIN MUSTAKIS.

82-92 Beaver St., New York, U. S. A.,

An Eastern buck raiser writes: "Don't send The NATIONAL WOOL GROWER any longer as I am for free wool." When he gets "free wool" the Western wool grower will write: "Don't send me any more bucks, as I am out of the sheep business."

Wool growers will be pleased to attend the Forty-Ninth Annual Convention of the National Wool Growers Association at Cheyenne, Wyoming, next Winter. A date about the middle of January will probably be selected.

The current price for Merino rams in Australia ranges from \$15 to \$18 per head. About the same as in this country.

Fraud in Wool Imports

IN THE pages of this paper we have frequently called attention to the possibility of fraud through under-valuation where import duties were assessed on the ad valorem basis. It has been known for a long time that considerable trickery was being practiced in the imports of carpet wools. Carpet wools, or Class III wools, are really on an ad valorem basis, for the law provides that wool worth 12 cents per pound or less shall pay 4 cents in duty, and wool worth over 12 cents, shall pay 7 cents in duty. This, in effect, places the duty on the value of the wool, and as will be anticipated, in order to achieve a saving of 3 cents in duty, the importers endeavor to under-value their imports so as to come under the 12 cent limit.

Class III wools are very high abroad and in fact there is only a limited quantity of the lowest grade of these wools that is available at 12 cents per pound, but the imports show that practically 70 per cent of the Class III wool that is brought to this country is invoiced at 12 cents per pound, or less. Those acquainted with the wool trade believe that nearly 70 per cent of these wools cost over 12 cents a pound and should pay 7 cents in duty instead of 4 cents.

On April 22d the National Wool Growers Association called the attention of the officials of the Treasury Department to the frauds that are being practiced in the importation of these Class III wools. This matter was referred to in a letter of that date to the Treasury Department. Under date of June 20th, the Treasury Department states as follows:

Referring to your letter of April 22d in which you state that you have knowledge from various sources that Class III wools are under-valued in many instances, I have to advise you that the Department has investigated in numerous cases the value of Class III wools and frequently has discovered under-valuation and collected additional duties accruing by reason of such under-valuation.

It will be noted that the Treasury Department did not reply to our communication for two months, during which time we are advised that they have conducted a vigorous investigation to determine the amount of fraud that obtained in these imports. That their labors have not been fruitless

will be interpreted from an article contained in the *Trade Record* of June 4, 1912. We quote from that article as follows:

Owing to the fact that there are several important wool cases, relative to market values, pending before the Board of United States General Appraisers and the way Custom House authorities have raised the value of some wool imports, during the past few weeks, wool importers are considerably disturbed. Direct importers of wool deprecate the action taken by the Government in raising the rates on certain descriptions of Class III wools. A good amount of carpet wool, instead of coming in at the lowest rate of duty, was held up for re-appraisal, which resulted in these importations being assessed at the highest rate of duty. The losses that accrued in the shape of penalties and the added taxes of 3 cents a pound were severe, in addition to placing the importers in a suspicious light. Not only did the importation of these wools prove profitless, but in several instances it was reported the importers had to take severe losses.

It has been known for some time that the Custom authorities were closely watching wool imports and it is stated that during last week other cases were decided against importers.

In addition to the cases referred to in the above communication, we understand that the Treasury Department has caused a re-appraisal of a great volume of Class III wools now in its warehouse and as a result of this, the duty paid on these wools will be 7 cents per pound instead of 4 cents per pound.

The under-valuation of Class III wools is a matter of considerable interest to the wool growers of this country, because it has always been known that a large volume of these carpet wools were being used for clothing purposes, some of which were being brought into this country at as low as 4 cents per pound duty. Many of these wools are of light shrinkage and a pound of scoured wool is obtained for 6 or 7 cents in duty, but on the cloth made therefrom, the manufacturer has a compensatory duty of 44 cents per pound under the assumption that the duty on the wool therein raised its value 44 cents, when in reality it only raised its value 6 or 7 cents. The carded woolen manufacturers are the ones who use much of these Class III wools in clothing, but the worsted manufacturers are not entirely free from suspicion. A pound of carpet wool obtained for 4 cents in duty that is used for clothing displaces more than a pound of domes-

tic wool and therefore, if we are entitled to a protective duty upon our wool at all, it should be protective upon every imported wool that displaces our wool.

We know it will be charged that Class III wools can not be used for clothing purposes, but they are used for that purpose and are quoted in the markets as clothing wools. Quoting from the *Commercial Bulletin* of Boston, under date of June 1st, the following:

East India clothing wools have moved moderately well and prices have been steadily maintained, fine white Jorlas having sold at 40 cents and tinged bringing 2 to 3 cents less, while Kandahars have brought 37 and 38 cents.

This quotation refers distinctly to Class III or so-called carpet wools which we are assured by the importer can not be used for the manufacture of clothing, yet they are here openly quoted as clothing wools. These are not the only wools of Class III that may be used for clothing purposes, as several other grades could be mentioned.

The country is still charging the wool grower with having a protection of 11 cents per pound on his wool, yet here we see wool imported at 4 or 7 cents per pound going into our clothing upon which the compensatory duty is just as great as if it had given the domestic producer the full protection of 11 cents per pound, as specified by law.

If cloth made from these carpet wools upon which the duty is so low benefited the consumer directly, there might be some excuse for the continuation of this fraud, but cloth made from these wools sells at just as high a figure as cloth made from wool upon which the duty is double this amount, and so far as clothing is concerned, the consumer finds no difference in the price, whether it is made from wool upon which the duty was 12 cents a pound or from wool upon which the duty was 4 cents a pound. The only beneficiaries in this case are the wool importer and the wool manufacturer, and the losers are the domestic wool producers and the Treasury of the United States.

We shall continue our investigation of this Class III wool business and urge the Treasury Department to ob-

tain the actual foreign values of these wools wherever it is possible to do so. However, this is a large undertaking for the Government, as will be indicated by the following quotation from an opinion rendered by the Board of General Appraisers in the case decided against the wool importers, under date of June 12th. This case refers to an importation of Georgia Class III wool from Russia where it had been invoiced at 11.97 cents per pound. Being 3-100 of a cent a pound below 12 cents it was entitled to entry at 4 cents per pound duty, but the Board in increasing the duty to 7 cents, made the following observation:

It is true that it appears that the wool examiners in the Appraisers' office at the ports of Boston, New York and Philadelphia have expressed the opinion that such wools at the time of shipment were low duty wools, but it is not to be overlooked that these officers, diligent as they doubtless are, and honest as their judgment may be and doubtless is, have no first hand information or reports as to the actual market value on any given day or period of such wools in the Russian market.

Such a statement as this from the Board of Appraisers should we think be sufficient evidence upon which to dispense with ad valorem duties upon imported merchandise. Everyone who honestly investigates this question must arrive at the conclusion that there is no method by which the foreign value of wool or many other commodities can be determined, therefore honest ad valorem is impossible.

Of course, we do not assert that articles upon which a specific duty is collected may be entirely free from fraud, for some of the largest customs frauds within recent years have occurred in connection with specific duties, such, for instance, as the sugar fraud. Where fraud occurs in connection with a specific duty, it is always the result of dishonest connivance on the part of the Federal officials, but where fraud occurs under ad valorem duties, the importer is the dishonest party and the Federal official may be entirely innocent of wrong-doing. With such a commodity as wool, if the importer invoices it at a certain price, it is difficult for any Government officer to obtain the true foreign value of that product. This is the reason why the important countries of Europe have abandoned ad valorem duties wherever possible.

We do not know whether fraud has been practiced in the importation of

Class I and Class II wools, but wool is a commodity that would readily lend itself to under-weighing and in that way it might be imported without duty. However, when both forms of duty are thoroughly understood, the weight of honesty and fairness is upon the side of specific duties.

WOOL PRICES

The *Boston Evening Transcript*, under the above caption, prints the following report of the wool market:

"The feature of the local wool market is the demand for medium fleece wools, which was foreshadowed in the small opening sales reported last week, and a general broadening both as to the prices and aggregate sales. The situation is considered much more encouraging than hitherto. The statistical position is strong. Little attention is being paid to the political situation. The fear of a change in the tariff law this year seems to have passed, and both dealers and manufacturers are proceeding as though danger from sources no longer threatens.

"With this menace removed higher prices doubtless are to rule in the wool market. Manufacturers have already paid higher prices than were considered possible a month ago. Some of the wool trade express surprise that the buying is of so good character. A decided reversal of sentiment is noticed, and dealers who were exceedingly conservative a month ago are now pronounced in predicting an early advance in prices, following an improved demand for wool.

"The movement the last week has had a wide range, the sales including new Utahs, Nevadas and Wyomings in original bags, scoured territories from the 1911 clip, South America and New Zealand crossbreds and medium fleeces. As bearing on the marketing of the new clip, the latter ranks the others in importance especially as the movement is of considerable size.

"A manufacturer who has a wide reputation as a shrewd and careful buyer has contracted for something like a million pounds of medium fleeces, to be delivered as soon as opened and graded. The same price, 29c, was made on all grades, quarter-blood, three-eighths blood and one-

half-blood, being included. The price is considered very good for the early bought wools. The sellers acknowledge that it is satisfactory. On the later purchases in the fleece wool States, especially Ohio, a higher price will have to be made.

Fleeces Coming Forward Rapidly.

"These medium wools are for future delivery, as comparatively little fleece wool has yet been opened in this market. The volume coming forward, however, has decidedly improved recently, and considerable is now in the lofts. Nothing has yet been done in the way of the transfer of the new fine and delaine wools, especially washed wools, which are still scarce. High prices still are being paid in the country. Ohio farmers are pretty well sold out. The prices paid vary materially in the different sections. In some, as high as 27 to 28 cents is reported paid for medium wools, while in other cases the top prices are claimed to be 24 to 25 cents. This latter makes the medium wools cost 26 cents on the cars. For washed Delaine wools, as high as 30 cents has been paid and for fine unwashed 22 to 24 cents.

"The opening price of medium wools are pretty well established by the large contracts mentioned above, but not enough has yet been done in fine wools or delaines, either washed or unwashed, to establish values. Based on the recent purchases in Ohio, fine washed delaine must sell at 34 to 35 cents, and fine unwashed delaine at 27 to 28 cents. For XX and above wools, the opening prices are likely to be 31 to 32 cents, and for fine unwashed 23 to 24 cents.

"Conditions in Michigan are entirely different from those in Ohio. Buying appears to be at a standstill in that State, with something of a deadlock between growers and buyers. It is reported that about all the wools that are to be had at 24 to 25 cents on the cars have been picked up, and while the local buyers feel that they must get more, dealers will not pay any more advance. Hence trading is at a standstill. Little has been done here in Michigan fleeces, as very few of them have come on the market. The great bulk of the early purchases were taken by two leading mills; hence little of the new wool is available in this market. One dealer reports the sale of a lot of 50,000 pounds of Mich-

igan 1-4-blood at 28 cents, or about 1 cent per pound under the opening price of Ohio 1-4-blood.

Much Wool Being Consumed.

"The increased movement in new wools, both fleeces and territories, indicates that manufacturers can see a good demand ahead for their product. They are using a large amount of wool, while as a rule stocks carried at the mills are small. The season's developments thus far have been in the direction of low wools. Spinners making worsted yarns are reported to have secured a good business, in some cases being sold for six months ahead.

"A strong feature of the situation is the falling off in the clip from recent years. It is estimated that the clip of 1912 is 20,000,000 to 30,000,000 pounds smaller than last year, and 50,000,000 to 60,000,000 pounds smaller than two years ago. If the goods trade continues to show improvement and the mills are busy, they will be obliged to turn to foreign sources of supply to a greater extent than for several years. In this direction the situation is complicated by the threatened drouth in Australia and the continued firmness in London. These things largely explain the attitude of manufacturers toward the local wool situation."

New Territory Wools Higher—A Cent to a Cent and a Half Advance in Utah, Nevada and Wyoming—Profits Shared With Manufacturers.

"A very good business is reported in new territory wools at prices a little higher than any hitherto quoted. The new Utah wools have continued to move, the grease prices realized being 19 to 22 1-2 cents, the cleaned cost being estimated at 55 to 57 cents. The new Nevadas have sold at 20 to 22 cents, the scoured cost being 58 to 60 cents. For the new Wyomings, 19 to 22 1-2 cents has been realized, the scoured cost reaching as high as 58 cents. All of these wools have been sold in original bags and are being taken by mill buyers as fast as they arrive. None of the new Montanas have yet arrived, though shearing is well along in that State. It is estimated that fully three-quarters of the Montana clip has now been secured by Eastern buyers. As high as 22 cents has been paid in that State for medium clips. This

price was paid by a Boston dealer for one large clip, and considerable wool has been secured for Boston houses on the basis of 21 cents for medium.

"The prices paid recently in Montana and in other points where new wools still are being offered raises the question whether Boston holders have not made a mistake in letting the new wool of light shrinkage go at the prices hitherto current. They have shown the sellers a good profit, and most dealers believe in giving the manufacturer a share of the advantage derived from fortunate purchases before the Western primary markets get under way. This is the attitude taken thus far by leading houses here, as nothing else can adequately explain why holders of the desirable light shrinkage wools coming from the early contracts in Utah should have sold them at figures much lower than they could be replaced for in the later buying.

"A leading dealer says that it is good policy to open the market low, provided the first sales show a profit, even though it is certain that later an advance must be demanded. This is being done this year in the handling of both fleeces and territories, and both kinds of wool are being sold at figures that will be impossible when the later purchases come on the market. The whole situation looks so firm that dealers are feeling very much encouraged, and it now looks as though the new clip would be cleaned up quickly and at a fair profit.

Some Slight Concessions Reported.

"In other primary markets in the West a very firm feeling is reported, though some dealers say that they have obtained wool at a level a little lower than that recently quoted. ed, and the new wools being taken as fast as they are shorn. At Shaniko, Ore., a sale was recently held, and the Baldwin clip was secured by the Botany Mills at a price not made public, but as the seller refused the first bid, it is supposed that a good price was paid. At Ontario, a sale was held this week, the price paid by Eastern buyers making the scoured cost laid down here 58 to 59 cents for fine staple wools and 56 to 57 cents for wools suitable for the French combs.

"Buying is going on steadily in

Texas, recent purchases being made on the basis of 16 to 19 cents for 12 months wool and 15 cents to 17 cents for eight months. The scoured landed cost of these wools is about 54 to 55 cents for 12 months and 48 to 50 cents for eight months. Nothing new is reported from California, the purchasing in that State being still in the hands of local buyers. There is some interest in these wools here, but it still is likely that the clip of that State will largely come forward on consignment. Such wools will cost 48 to 50 cents for choice northern and 46 to 47 cents for middle county.

"Scoured territory wools have been quite active in this market, the current prices being 53 to 55 for choice fine and 50 to 53 cents for fine medium. There is possibly less speculative buying by dealers, though some is being done, while manufacturers show more interest.

"Pulled wools are scarce, especially for choice B super, the recent sale being mostly fine A supers. Lamb Bs are offered with some freedom but there is little interest in them at present. Holders are asking 42 cents for good lots.

SOME GOOD ADVICE

Washington, June 11, 1912

Mr. S. W. McClure, Raleigh Hotel
Washington, D. C.

Dear Mr. McClure: The following letter has been sent by District Forester Sherman to all of the flock masters who have permits for grazing their sheep upon the National Forest in his District. I feel quite sure that it will be of interest to the readers of **The Wool Grower**:

"Dear Sir: As the time approaches for taking your sheep to the summer range on your Forest allotment, I wish to direct your attention to the necessity of giving your employees careful and thorough instruction with regard to the proper management of the stock on the range and utilization of the forage crop, as well as the measure of cooperation that should exist between them and the Forest officers in the matter of the prevention and suppression of forest fires.

"We must look to the camp tenders

and herder for any improvement that may be brought about in present range conditions. They are, as a rule, better acquainted with the allotment, the grazing capacity of the different camps, have a more intimate knowledge of the habits of the stock, and know better how to get results than any one else. Both the flockmasters and the Forest Service must depend upon them in many ways, and the future of the wool growing industry, so far as the use of the National Forests is concerned, is in a great measure in their hands. For this reason a well directed effort on your part toward increasing the interest in matters of range development and forest protection would indeed be worth while. The Forest Service is also looking more and more to the camp tender and herder as a part of the fire protection force of the National Forests, and to the end that there may be the closest kind of cooperation between them and the Forest officers, I wish to suggest that you instruct your employees to observe the following rules while on the National Forests:

"Notify the nearest Forest officer at once of any smoke or fire that may be seen at a distance.

"Extinguish any camp fire or other small fire that may be found, or if one is discovered which has gained such proportions as to make this impossible, notify the nearest Ranger as quickly as possible, and render such assistance as may be necessary until the fire is under control.

"Do not drop lighted matches or burning tobacco where there is inflammable material.

"Extinguish camp fires completely before leaving them even for a short absence.

"Hold the sheep on the lower and earlier ranges until the forage crop on your summer allotment is well matured and ready for harvesting.

"Give the forage plants on your allotment a chance to reseed by adopting a rotation system of grazing. This means letting the plants mature their seed on one-half of the range one year before grazing it, and on the other half the next year. The aim is to allot the same range to the same permittee year after year, and it

therefore deserves your best care and attention.

"Avoid shading up under the same cover day after day. Injury results to small trees from this practice, which may be largely avoided with a little forethought and care.

"Sleep with sheep and bed them out where night overtakes them, whenever possible. Using the same bed ground night after night is hard on the range and sheep. Quick massing with dogs should be avoided.

"Leave the camp in good condition and return to it later, rather than feed it out completely on the first visit.

"The pasturage system should be approached as nearly as possible without fencing.

"I am convinced that with your assistance a great improvement can be accomplished in the present condition of the Forest ranges, as well as saving thousands of dollars worth of timber annually from destruction by fire. I have heard but little complaint and much praise from our Supervisors with regard to the interest the flockmasters and their employees have taken, and assistance they have rendered in reporting and helping to extinguish forest fires, and I am also advised that there is a growing tendency toward adopting better methods of handling the sheep on the range. There is much still to be done, however, and when you fully realize that better forest and range conditions mean increased grazing capacity and added prosperity to the wool growing industry, there will be, I am sure, still closer cooperation and greater progress than there has been in the past.

"Such complaints as have been made appear to be due to the fact that in some instances camp tenders and herders have received absolutely no instructions as to what is expected of them in preventing damage to the forest and range from injury by fire or other causes. I feel that this neglect has not been intentional on the part of the owners, and take this way of asking you to be sure proper instructions are given to the men who are charged with the care of your sheep as to their duty and responsibility while on the Forest. Such action on your part will be greatly appreciated by the Forest Service."

The assistance which has been rendered by the flock masters in the past is deeply appreciated, and I am anxious to have it generally known how highly we value the cooperation which they have given us in caring for the National Forests.

Very sincerely yours,

A. F. POTTER,
Associate Forester.

GOOD LEGISLATION.

The Legislature of Pennsylvania has passed a bill appropriating fifty million dollars as the first installment for a comprehensive plan of general road improvement. The bill now goes to the people for their approval which without doubt will be given, for there can be no possible excuse for failing to endorse this appropriation. Pennsylvania's roads are notoriously bad, so bad in fact that during a part of the year farm products can not be economically marketed.

The cities have as much interest in good roads as the farm, everything that they use in some form or other is hauled over the roads and the facility with which such products reach the market is measured by the condition of these roads. Bad roads and high cost of living are closely related.

A WISE DEPARTURE.

In June the Idaho Experiment Station purchased with State money three car loads of high grade dairy cows in Wisconsin and shipped them to Idaho and sold them to the farmers and dairy men of that State. This is a new departure in governmental aid and one that we feel should be followed by every experiment station in the union. The Idaho farmer wanting two or three cows could not afford to go East for them himself, but the State can well afford to bring such cows to him in order to increase her taxable property and develop her natural resources.

The Idaho Experiment Station is to be congratulated upon the initiative it has shown in this instance. It is a worthy example of what may be done to promote the welfare of the stock man.

The National Wool Grower

Published by the National Wool Growers Association
Organized 1864

President, Frank R. Gooding - Gooding, Idaho
Western Vice-Pres., George Austin, -
Salt Lake City, Utah

Eastern Vice-Pres., A. J. Knollin - Chicago, Ill.
Treasurer, Frank D. Miracle - Helena, Mont.
Secretary, S. W. McClure - Gooding, Idaho

Published at Gooding, Idaho

Edited by the Secretary

Subscription One Dollar Per Year. Entered as Second-Class Matter October 11, 1911, at
the Post Office at Gooding, Idaho, Under Act March 3, 1879

A KINDLY POLICY.

We have long understood that imported wool possessed considerable advantages over domestic wool in our own market, not in quality, but in favors shown it.

One of these advantages comes from the fact that an importer may buy wool in London, or anywhere else, ship it to Boston and there place it in a government warehouse and leave it there three years without paying any duty or taxes upon it. The duty on imported wool is not paid until it is withdrawn from the government warehouse for use in this country. It can be withdrawn at any time and re-exported without paying either duty or taxes. While the wool is in bond it pays merely a storage charge said to be the same as is charged in any private warehouse.

There is always a large volume of this "free wool" in our warehouses. On May 25, 1912, this amounted to 55,394,617 pounds, but at times it runs over 100,000,000 pounds. It is cheaper for the importer to keep it there than it would be at home, for if he took it out of the warehouse he would have to pay the duty of 11 cents per pound and he would also have to pay taxes upon it the same as he does on domestic wool. He saves the interest on 11 cents per pound and the taxes on the total value of the wool. He also saves the interest on the transfer and freight charges from the dock to his own mill or warehouse. If the foreign market goes up he can speculate, if he wants, and send the wool back to London. If the importer had placed his money in domestic wool he would have to pay interest, taxes, and transfer charges,

all of which are avoided by dealing in foreign wool.

This "free wool" in bonded warehouses keeps down the price of domestic wool as it is always reported as "available supply". If the domestic wool grower should decide to hold his wool for a better price the manufacturer withdraws some wool from the bonded warehouse. Of course he has to pay the duty but he can afford to do this since he is forcing down the price of the entire domestic clip.

If these "special privileges" were not given to imported wool speculation in foreign wool would cease and we would get the benefit of the law of supply and demand, of which we are now denied. The importer would then import it just as it was needed, like he ought to do.

Imported wool should be made to pay the duty immediately when it enters this country. It should only be allowed to remain in a government warehouse 90 days, where the storage charges should be greater than in private warehouses. It should be taxed from the day it landed.

Why place a tariff on wool and then proceed to give the importer "special privileges" over domestic wool?

PURE CLOTH.

Congressman Campbell of Kansas some time ago presented to the House a bill providing that all manufacturers must stamp or mark all manufactured goods with their name. This bill was aimed to prevent fraud and its purpose is highly commendable.

Much opposition to this measure has developed and the Committee on Commerce, to which it was referred,

will not, we understand, report it. This action is taken on the ground that the bill is defective in some particulars.

We cannot recognize this as an excuse for the Committee's action as it has full authority to remedy any defect in the proposed law, and if necessary report a substitute in its place.

There is immediate need for a law that will prevent or publish adulteration of merchandise. Since a law cannot be had, the next best thing is to provide that all goods shall carry the makers name so that the public will at least know the name of the party who deceives them. The Campbell Bill should have become a law.

MUTTON PRICES.

A Philadelphia paper wonders why the wool grower does not raise more sheep when we can sell them at \$10.45 per hundred.

The answer to this is that the sheep breeder cannot sell his sheep for any such a price, in fact it keeps him busy to average one-half of \$10.45 for his mutton. The average wholesale price of all sheep in Chicago last year was \$5.39 per hundred—quite a difference between these two figures.

Sheep are never worth \$10.45 when the sheepman has any fit to sell. If he had them fit to sell the price would not be \$10.45. There is considerable fake about these market reports anyway. The packer buys a load of sheep at \$10.45. Then he buys a hundred loads at from \$5 to \$6. The public never hears of the average price paid to the sheepman, but great pains are taken to publish the high spots.

There is just as little excuse for the extremely high prices as there is for the average low prices. Both can be avoided by paying the sheepman a decent price for his sheep the year round.

Last year 17 million sheep were slaughtered, probably more than our market can handle but the packer has it in his power to correct all the present market evils.

The public is becoming justly enraged at the high price of meat and a powerful movement is organizing to remove the duty from meat of all kinds. If the packer is trying to

bring this about he is working along the right lines.

December, January and February saw the price of mutton below the cost of production. Had the feeder been receiving a fair price then he could have afforded to hold his sheep on high priced feed. This would have assured an adequate supply later in the year and the public would not have been enraged at the sheep breeder, who was absolutely innocent.

When this country is forced to import its meats, it will, we hope, go a step further and regulate the prices at which these meats are to be sold.

CONSERVATION.

The disastrous floods that in May swept the Mississippi Valley are now attributed by some to the cutting off of the timber in the Northwestern States and by others to sheep grazing in the National Forests.

These are both time worn arguments used by the extreme conservationists to justify the locking up of our natural resources.

How foolish all this sounds to one who knows that these floods came forty days before the snows in any of the Northwestern states had begun to melt. When the Mississippi was at its height the waters of Northwestern streams were not even muddy. Trout fishing was at its best.

There never has been any relation between sheep grazing and floods, and there never will be. The Mississippi proves this every few years. Grazing may reduce flood waters somewhat because it tends to cover the earth with a dense sod, but we are not vain enough to charge that this influence could be detected at New Orleans or Memphis.

The Mississippi floods are traditional from the days of the earliest settler. In fact floods are what made the Mississippi Valley, and they made it long before Christ was born, and in those days the sheepman was deemed fairly respectable.

There is not an iota of evidence to prove that these floods are greater or less in volume or frequency than they were one hundred years ago. Willis Moore of the Weather Bureau, our best authority on this subject,

has published a valuable bulletin showing that there has been little change in stream flow within the life of that Bureau. His should be good evidence.

The Mississippi has given birth to a thousand floods and will breed a thousand more, restricted only by such obstructions as a wise government may erect along its course for the protection of its people.

THE TARIFF BOARD.

The Tariff Board is no more—it is gone as a tribute to Democratic expediency. During its existence it rendered valuable services to the Nation. It reported on wool pulp, wool, cotton, and also prepared a glossary of other schedules. It performed its work well and faithfully, and its findings are free from political prejudices. This was to be expected for the board had no political standing. All that is known of its political sympathies is that two of its members were Democrats and one a protectionist. The other two were unknown quantities politically.

The Tariff Board escaped from office without any one having charged it with wrong doing or endeavoring to distort the facts in order to promote the interests of any industry. Quite a record for these days, and the Board is to be congratulated.

The Tariff Board was created in answer to a broad public demand. The field before it was wider than that confronting any other governmental commission. It was originally suggested by the Progressive Republicans, then by the Regulars, and most of the Democrats. Both Mr. Underwood and Mr. Clark, leaders of their party, spoke and worked for the creation of this Board. Today these two Democrats are responsible for its death. It goes out of existence because these men refused to allow any appropriation to be made for its maintenance. The failure of this appropriation is due to causes unknown. It cannot be explained on the ground of economy for economy is not a principle of the Democratic party. Party leaders that would expend millions of public money to investigate departments and private institutions for the purpose of obtaining political information to promote their party's wel-

fare are certainly free from any suspicion of economy.

The establishment of the fact that the standard of wages and citizenship are higher in this country than abroad, makes the maintenance of a protective tariff imperative to our national welfare. Such were the facts that the Tariff Board established beyond the plane of political dispute. Such facts are inimical to the existence of a political party that levies tariffs for "Revenue Only". Therefore, the dismissal of the Tariff Board.

Time will bring another Tariff Board just as it brought the last. When it comes let it be endowed with authority to not only determine the difference in cost of production here and abroad, but to make this difference the law of the land without appeal to Congress. No tariff should be inflexible—it must bend with the needs of commerce and meet its changing conditions. Congress with its unwieldy sectional prejudices cannot handle the tariff. This should rest in the hands of a commission beyond the reach of politicians. For instance, a tariff should be automatically raised and lowered. Last year the tariff on wool brought no return to the wool grower, yet all the time the manufacturer had a compensatory duty of 44 cents on a pound of cloth under the assumption that the wool was raised that much by the tariff. We had a short crop of potatoes last year, not enough to supply our market, and the price went to a prohibitive level. In both of these cases a Tariff Commission should have stepped in and abrogated the tariff until trade assumed its normal level.

The tariff is a simple problem any time politics can be eliminated from it.

WOOL PRICES.

For the past six months this paper has persistently predicted better prices for wool and has urged the wool growers to demand a square deal. Many of them have accepted this advice we are advised with excellent results.

In this issue we publish a review of the wool market from the Boston

Transcript and we invite for it close attention.

Late advices from Australia estimate that as a result of the drouth the clip of that country will be at least one hundred and twenty million pounds short, with the prospects of the deficiency reaching a far greater volume. This means an actual shortage in the world's wool supply. At home, as a result of tariff agitation, our domestic clip will fall off some twenty-five million pounds. The supply of manufactured woolsens in this country is decidedly below normal. The American Woolen Company reports its machinery better employed than for two years, and a portion of it running steadier than for seven years. All of these facts place wool in an enviable position, and we predict that the banker who is carrying "sheep paper" will be disposed to look on it with greater favor than he has for the past three years.

THE NEW FLAG.

On the morning of July 4th over all our Federal buildings and fighting crafts there was unfurled to the breeze a new flag containing forty-eight stars. It has long been the practice when new states have been added to the Union during the year, that the new stars should first make their appearance on the following Independence Day. This time the new stars represent Arizona and New Mexico.

Probably no one living will see any addition to the starry azure of Old Glory. Continental United States is now completed all secure within the Union upon an equality of representation. New stars, if there are to be any, must come from the division of existing states, of which the possibility is remote.

There is particular interest in this new flag to the western sheepman for it was the sheep industry that added Arizona and New Mexico to the Union just as it has added Idaho, Montana, Wyoming, Nevada and Utah.

The sheep has long been the pioneer of civilization; pushing its way into every new country and carrying with it settlement, development and citizenship. Unlike the steer or the horse the sheep cannot live alone.

Where it goes man must always follow, otherwise it perishes. Over the wastes of Chaldea, through the blizzards of Russia, the sunburned sands of Australia, the deserts of Argentine, the great plains of our own West, the sheep has gone, leaving behind it men and homes, and farms, and cities, all of them better and richer because the sheep had been there. Yes, even the citizenship of these countries has been bettered by the sheep, for where it goes it exerts a psychological influence upon its keeper, an influence that makes for law and order and decency. Itself free from all violent traits of character, at all times willing to abide by the law of man, in fact, dependent upon such laws for its existence, what more natural than after 100,000 years of close association with humanity it should become its superior in some respects.

Yes, the flag is done; its stars are all there, but the work of the sheep is not complete. It must climb with the rising sun to the giddy heights of our western mountains, where by grazing it will cover the almost barren soil with a dense sod and so prevent erosion. It must continue to travel in and out among the forest trees, eating weeds and trash that fire may be prevented. It must continue to feed over valley and range preparing the land so that the farmer who comes later may feed the world from its richness. And then it must turn, like the shepherds of 2,000 years ago, to the East where guided by the star of soil exhaustion, it shall again find its way into the pastures of New England, Ohio, Illinois and Iowa and there touch with the magic gold of its hoof a hidden richness that only the sheep can bring to the land.

A complete flag without a fertile soil would be worthless. The sheep made one; it must now make the other.

In arranging the show circuit this Winter, be sure to make arrangements to take in the Sheep Show at Cheyenne, Wyoming, at the time of the National Wool Growers meeting.

Don't let the tax collector annoy you; just send whatever you have to a bonded warehouse. The Government will protect you from taxes.

A NEW FLOCK REGISTER.

A flock register of the Kent or Romney Marsh breed of sheep was recently opened in this country. The eminent sheep authority, Joseph E. Wing, of Mechanicsburg, Ohio, is secretary of the new Association. Under his guidance it is bound to be successful. It is reported that Riddell and Sons of Monmouth, Oregon, were the first to register a ram in the new register.

At the St. Louis World's Fair Riddell and Sons purchased a small flock of Romney sheep that have since grown in numbers and quality and are reported to have proved valuable in their Oregon home. The wide publicity that is following the extensive use of the Romney sheep in New Zealand and South America bids fair to extend its use in this country in a rapid manner. The report of the Tariff board contains so much information upon sheep breeding in those countries that the American sheepman has been given a better understanding of the uses of this new breed. At the present time there is but a limited number of Romney sheep in America but we anticipate liberal importations, and during the next few years we bespeak for them a hearty reception.

CO-OPERATION.

Co-operation is making progress among our farmers in many parts of the country. Down at Springfield, Missouri, the dairy men organized for their own protection last year. The creameries there would not pay them within 6 cents per pound for butter fat as much as was paid at Elgin, Illinois, which is recognized as the standard price.

By organizing, the farmers forced the creamery to raise the butter price 4 cents per pound which saved the seven hundred members of the association \$72,000.00 last year. Not satisfied with this, these same dairy men are now building their own creamery and propose to sell their products direct to the consumer, eliminating all middle men and waste places.

Wool Growing in Australia *By R. H. HARROWELL*

Part III---A Short History of the Australian Merino

IN MY last article I gave an idea of how the foundation of the New South Wales, Tasmanian and Victorian flocks

was laid, and though the names of many flocks that subsequently became famous are omitted, it is because they are not immediately concerned with direct importations. The latter flocks of prominence were built up by the movement of sheep from one State to another until the time came when a large number of breeders used rams of their own breeding entirely. There remains now but the South Australasian type to be mentioned.

Among the earliest importations to South Australia were the sheep brought out by the South Australian Company in 1836. These were selected from the following well known studs: Leutewitz, Nischwitz, Burser and Oschatz, and they were descended from the flock owned by the Elector of Saxony. In 1844 the Company imported Mecklenburg rams.

The South Australian sheep are often spoken of as the Murray type, for the reason the late Mr. John Murray of Mount Crawford originated the large, plain bodied, long stapled, robust wooled sheep which now predominate in South Australia. He founded the Mount Crawford flock in 1842 with sheep purchased from New South Wales and Tasmania and from the first he only used rams bred in his flock. Thus his sheep early acquired a reputation for great prepotency, and on his death in 1886

the flock was divided among his children, who still carry on the distinct type. In 1838 Mr. Solomon Austin of

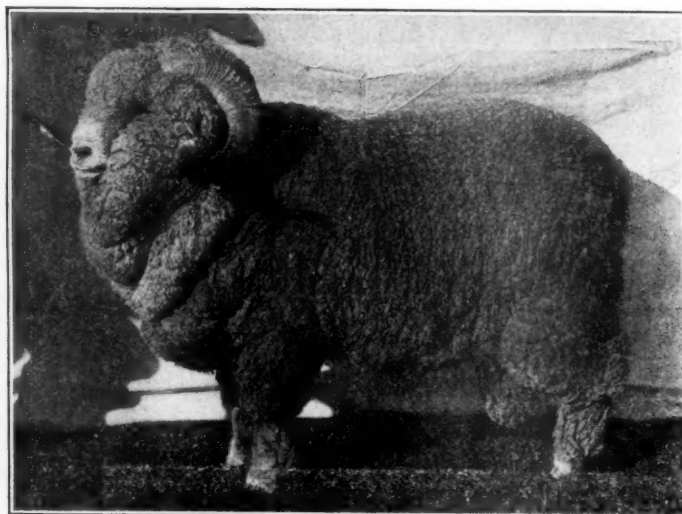
lia, was founded on New South Wales blood, but in 1858 Negrette rams were imported, also rams from Rambouillet. The Canowie flock was formed in 1857 and in its early years Negrette and Rambouillet rams were introduced.

The above notes, and those which appeared in my previous article, suffice to sketch the origin of the principal Merino flocks of Australia, and soon there came a time when importations ceased, and the local stud flocks carried the industry ahead. It will be seen that the Australian Merinos are of Spanish, French and German origin, though the influences of locality, and the definite purposes and special requirements of

TASMANIAN TYPE, PRESENT DAY.

Yallum visited Germany and purchased rams for his flock, which was sold in 1861 to Mr. John Riddoch, who in 1862 purchased Negrette rams. The Bungaree Merinos, another leading strain in South Australia,

quite transformed the general appearance of the sheep and have vastly increased its utility. I now come to a time which created great controversy in the Australian sheep world, viz: the importations from the United States of America. The first importation occurred in 1866 when two rams by the celebrated American sire Old Grimes, bred by the late Hon. George Campbell of Westminster, Vermont, were sent up to Messrs. Peppin & Sons, Wanganella Station, in New South Wales. About the same time Mr. G. L. Size of Dunedin imported to New Zealand a shipment of sheep from the Westminster flock in Vermont. But the first consignment to really draw the attention of Australian sheep men to the special characteristics of the American sheep was in the year



SOUTH AUSTRALIAN TYPE, PRESENT DAY.

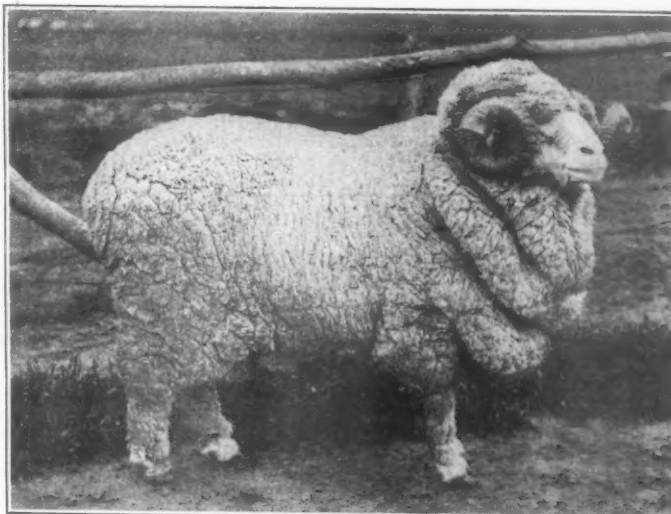
1880, when the Messrs. McFarland of Barooga, New South Wales, imported a very famous ram called Matchless, bred by Mr. J. N. Hardy of New York.

It may be just as well to here mention the ideas prevailing among Australian sheep men at the time of the first American importation, because it throws some light upon the attitude so many breeders took up. It may be said that Australian breeders as a whole had been aiming all the time at density, and in doing so they were gradually developing folds, though the sheep could be characterized generally as being of a very plain type. The wool was soft and carried very little yolk. The exigencies of climate and locality were very largely responsible for this type of sheep that prevailed in Australia at the time the Americans were first imported, and as the latter had been bred in a colder latitude and on absolutely different lines, the 'type caused no small amount of controversy when it was introduced into Australia. The extreme density of the American sheep, however, 'appealed to several of the most prominent wool growers in this country, while others predicted nothing but evil from the introduction of a type so extremely different from their own. The shorter staple, the excessive yolk, the buff color of the yolk, and the excessive wrinkles and folds of the American sheep, caused many breeders to fight shy of them altogether and to proclaim their unsuitability for Australian conditions in the dry hot country, where sheep have to hustle for a living. At any rate there were some men here who believed that the American sheep were just what was required to put more density into the Australian Merino, and it was

asserted that the great quantity of yolk carried by the Yankees would have a beneficial effect upon the sheep run on the dry plains of this country. Messrs. McFarland Brothers imported a great many sheep from America and some of their progeny sold for very high prices. Later on Messrs. Hay of Boomanomana,

were made by Messrs. Bissel, Burwell and Morrison and numerous breeders made purchases when these sheep were offered at auction sale. At the same time others remained fixed in their ideas and could not be persuaded to touch the American sheep upon any consideration whatever. During this period of controversy the

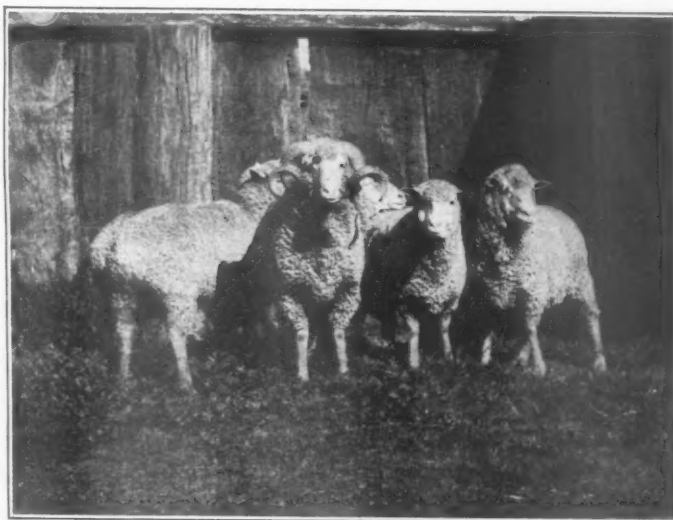
pure and the grade American sheep crept to the top at the leading shows and soon swept the boards. The only pure Australian type to compete with them was the Tasmanian, which was bred in a colder climate and so had more grease than the mainland sheep, and it was also developing more fold and wrinkle. Whether in America or Australia fold and wrinkle have always been associated with extreme density, and in the writer's opinion they always will. Sir Samuel McCaughey with his Coonong stud of pure American blood and grade sheep swept the boards at the shows, and his success induced Mr. J. S. Horsfall of Widgiewa to go in for the Yankees, and as a result he was soon at the top of the tree as far as prize winning was concerned. In spite of all this success many of the leading flock masters of Tasmania and the mainland still clung to their aversion to the American sheep, and in the press and at shows and sales, whenever a few sheep men were gathered together, hot discussions raged. This state of affairs continued for about sixteen or eighteen years, and by that time the results of breeding the excessively wrinkled, heavy fleeced sheep were becoming apparent in the ordinary station flocks. Sir Samuel McCaughey, who was then one of the largest wool growers in Australia (he has owned at one time over 1,000,000



AUSTRALIAN SHEEP WANGANELLA TYPE, PRESENT DAY.

New South Wales, imported sheep from America and shortly after Sir Samuel McCaughey of Coonong, New South Wales, personally visited America and purchased about £25,000 of the best sheep he could obtain. Subsequently other shipments

boards at the shows, and his success induced Mr. J. S. Horsfall of Widgiewa to go in for the Yankees, and as a result he was soon at the top of the tree as far as prize winning was concerned. In spite of all this suc-



AUSTRALIAN CAMDEN PARK MERINO. DIRECT DESCENDANTS OF THE SHEEP IMPORTED IN 1797.

sheep), was a large ram user, and he bred all the rams he used on his numerous properties. He was therefore in a position to judge from the *f. s. d.* point of view of breeding the type of sheep that was scooping the pool at the shows, and his verdict, despite all the money it had cost him, was eventually given dead against it. The American sheep had certainly increased the weight of the general station flocks, but during the same period the Tasmanian and pure Australian flocks had also made progress. The trouble was that the heavy fleeces and excessive wrinkles result-

ed in a loss of constitution which showed up when sheep had to hustle for a living, and there was also a loss in size of frame as well as in length of staple. Gradually this experience spread wherever the American rams had been largely used, and the pendulum suddenly swung in quite the opposite direction. All the big Vermont bred flocks were dispersed, Coonong and Widgiewa among the others, and at the present day I am stating only an absolute fact by saying that there is not one Vermont flock of any note in Australia.

The reaction has been considerable, and during the last five years wool growers and stud breeders have been tumbling over each other to get plain bodied sheep free from American strain. These remarks can be substantiated all over Australia, and though the great purity of the Vermont Merino has been admitted on every side, the prejudice has been against the lines on which it has been bred for so long, viz: heavy buff colored yolk, tremendously dense fleeces and heavy folds on necks, flanks, arms and thighs.

Our English Wool Letter

Conditions Generally Healthy and Prices Sound

Bradford, June 22, 1912.

IT IS to me a real pleasure to once again take up the pen to write to American wool growers, for, as month succeeds month, interest is deepening. Why should it not be so? I feel to have many interests in common with those engaged in the work of preserving the interests of sheep breeders and wool growers, and it will be a thousand pities if the great industry is allowed to wane, or in any wise suffer a setback. Whether there are any political complications or not, and whether the country is being held in suspense or not by uncertainty respecting tariff revision, the United States ought to be depasturing one hundred million sheep. I am certain that American pastoralists generally have no conception of the carrying capacity of their own country. Does the reader know that if England could be lifted bodily, it could be placed in Lake Superior, and yet something like twenty-one million sheep are being depastured in this small area, while Great Britain is carrying thirty-one million sheep. If this number can be packed into these islands, it is not too much to expect the United States to depasture one hundred million, and I am confident that so many could be reared without agriculture suffering at all. Where ever it is possible to keep sheep, a profit can be made out of them, and I sincerely trust that the work of the National Wool Growers Association will be rewarded by a largely in-

(Specially Written for The NATIONAL WOOL GROWER.)

creased production of sheep, and the better preparation of wool for market. Sheep are not multiplying as rapidly as the world's wool-using population, and when Western ideas and methods of dress become fully established in China and India, it will then take a big weight of wool to clothe the millions of people in those two countries. I am satisfied that the days of low wool prices are in the dim and distant future, and there is every encouragement for United States pastoralists to continue their forward policy, and to breed and rear more sheep of the mutton breeds.

An American Fleece.

During the past month I have to acknowledge receipt of half a fleece of Territory wool sent by the Secretary of the National Wool Growers Association. It has been a real pleasure to examine the material, and to show it to several well known Bradford wool buyers. All alike have expressed surprise at its excellence, and although of no more than 58s-60s quality, the fleece is very nicely grown, and of a very useful stamp. Some two years ago this coming August one of our well known Bradford-London buying brokers was over in the States, and secured two or three fairly big lines of Merino Territory wools. I saw these samples, but the one about which I am speaking is of a far better type, and more to the lik-

ing of Yorkshire users. This class of wool would sell readily in London, and command a good price, but I doubt if it could be sold for as much here in England as in Boston, for in addition to the English value there should be forthcoming the import duty of 11 cents. What I want to emphasize most is the useful nature of the sample sent. Of course, this clip only needs preparing for market in a somewhat better style by removing the locks, britch and belly, when it would become a very useful combing wool. For all topmaking purposes wool of nice length is required, and the sample in question would produce a good 60s top, worth here to-day 50 cents per pound.

Situation Healthy and Sound.

Turning to deal more directly with the course of the market, it must be said that the past month has brought forth little radical change. In the aggregate a fair measure of business has been done, and although prices have not moved up, everything is steady and firm. Dealing first with Merinos, these undoubtedly still occupy the foremost position in the market, and are relatively a little sounder than crossbreds. Fashions continue to favor fine-haired wools, and with consumption at the maximum, Merinos are being shifted in big weights every week. Nothing seems to be strong enough to displace fine wools, and as far as one can see they are "safe" for some months to come. During the whole of the past month I have only

come across one Bradford topmaker who spoke disparagingly about Merinos, and could not see why they should not decline! I disagree with him entirely. Ever since last January my opinion has been that fine wools were as safe as houses, and that so long as the present consumption is maintained, there can be no sound reason for any decline whatever. Consumption is too large for any such thing to transpire. During the month grave news has been coming to hand each day both by mail and cable that drought was affecting two-thirds of the pastoral areas of Australia, that sheep were dying by thousands, that the lambing crop was ruined, and that the next clip would show a shrinkage of at least 150,000 bales. This was certainly bad news, and was only too true. However, on June 8th it began to rain, and practically the whole of the Commonwealth received a copious downfall, averaging anywhere from fifty points to three inches. Soon the wires tingled with the glad intelligence, all the pastoral companies sending home to London cheering news that the drought had broken, prospects were better, and rain had saved the situation. At the same time, a fair amount of injury has been done to the growing clip. Feed will spring up in a fortnight, and the country will present a rich green appearance, but it is too late to undo the damage, and most of the next clip will be short in staple and poor in condition. Drought means tender stapled wool, and we have already been apprised that the next Australian clip will be faulty in this respect. West Victoria seems to have been the most favored district, no drought having been experienced there. The wools grown in that locality are bought mostly by American importers, hence they will still be able to supply their requirements, and their purchases will be sound and well grown. On the other hand the Queensland, New South Wales, South Australian and West Australian clips will be badly grown, tender, mushy and wasty.

Here in Bradford machinery continues to be fully run, and mills are busy. The price of a 64s top a month ago was exactly 52 cents and I can buy the same article to-day at that price. What many were fearing was the Continent taking the bit in its

mouth, and running away with prices, but the news of the drought breaking in Australia, has tended somewhat to sober those who were beginning to be anxious about the next clip. This last day or two prices have rather hardened, some topmakers now wanting 53 cents for a good 64s top, but it cannot yet be made.

Crossbreds Maintain Their Position.

A very quiet time has been experienced during the past month with regard to the bulk of crossbreds. Fine qualities, say 50s to 56s, have sold moderately well, but medium crossbreds, say 44s to 48s, have been very slow of sale, particularly 46s. These have been more or less a drug on the market, and no doubt on account of financial stringency some rather low prices have been taken. For instance, I know several cases where a 46s carded top has been sold at 27 1-2 cents, a price which must have lost money to the seller. These are well worth 28 1-2 cents of any one's money. In coarse crossbreds, 40s have not been a very salable article, but 36s have done very well, there being quite a run upon these sorts. The reason is that wool of this class coming from New Zealand is very scarce this season, and users have been driven to meet their wants in English. This means that users have had to wait until new clip wools were available, and they have had to satisfy most of their requirements from Lincoln and Leicester wools, particularly the former. Various views are held regarding the future of crossbreds. Some think that with there being such a big quantity available at the July series of London sales, prices may decline par to 5 per cent, but my own view is that if there is any fall, merchants and brokers will withdraw 40,000 to 50,000 bales and carry them forward to the September series when there will be little crossbred wool available. I am positive that owners will never submit to selling their crossbred wool at less money than they made last series, and there is no need for this to be done.

The English Clip.

Since writing last the new English clip has come into the market, and already a nice lot of wool has been disposed of. The first sale of the season opened at Lincoln on June 11th, and since then two and three sales have taken place every day at the various

Midland centers. Prices are a trifle below last year, but 1 cent only is the difference. In many cases, however, the price has been paid, and those who have bought privately from farmers have had their apple cart completely upset. They were able to get in at 1 to 1 1-2 cents below last year's prices, and were content to go on operating. However, the public sales have revealed exactly the position outlined a month ago, and although last year's clip was bought too dear, and no good done with it, buyers once again are "banking" upon an increased American demand, and are hoping to make a profit on their present purchases.

I do not know how far they are justified in their present line of action. English wools at current prices are none too good property for anyone, and unless there is an augmented demand on export account, we can easily see the same struggle as we had twelve months ago. There is yet a big weight of the New Zealand clip to dispose of, and these wools compete keenly enough with those of English origin. Lincoln hogs are fetching 20 cents in the country, and wethers 19 3-4 cents, prices which are a full cent too much. A good sale took place a week ago at Dublin, prices if anything being a fraction more than was paid in the country. Renewed enthusiasm seems to have been kindled in domestic fleeces, and dealers are content to go on buying without at the moment seeing any chance of receiving a profit. That is the funny thing about the present course of English wool prices. Good Shropshire Down hogs have been selling this week by auction at 23 1-2 to 24 cents, ewes and wethers 23 cents, while Kents (Romney Marsh) have made more than they did a year ago. Some seem to have lost their head a little, but of course, the business is all right for the growers. All I am concerned about is that both growers and buyers will do business in such a way that they will receive a little profit, for when producers get all the plums, buyers will take the first opportunity to get their own back again and a little more along with it. I hear of very little American competition, although a few Bradford firms have sold some nice weights to American users, and are covering these sales at the fairs. A few whom I know state that when they have secured sufficient for pres-

ent requirements they will allow things to sag a little—if they do. We have heard this fairy tale before, but it is hardly likely the prices will fall much, if any. The English fairs have begun remarkably well, and I anticipate that they will continue in the same way.

Leicester Fair.

To give my readers some idea of the prices ruling at the English wool fairs, I show below those made at Leicester last Tuesday. This is about the biggest fair in Great Britain. About 60,000 fleeces were submitted by public auction, the sale lasting six hours. Keen competition was the outstanding feature, and prices were often 1-2 cent higher than at the fairs held the week before. Yorkshire users were the principal operators. This being the first really large fair of the season, exceptional interest was manifested by all sections of the trade as to the course of prices. A very large proportion of the wool changing hands was secured for Yorkshire wool merchants and consumers, and it was also understood that a good deal of the best clips of Shropshire, Hampshire and half-breds were purchased on account of United States buyers. Some of the briskness in the demand is attributed to the admirable character of the wool as a whole. The fleeces were clean and bright, and above the ordinary in length of staple. There was every reason for satisfaction at the way the material had been prepared for market.

The following are typical transactions: Longwool ewes, 19 3-4 cents per pound; half-bred hogs, 23 cents; Shropshire hog and ewe, 24 cents; half-bred ewe, 23 1-2 cents; unwashed hog and ewe, Masham, 15 cents; Oxford hog and longwool hog and ewe, 21 cents; Down hog and ewe, 24 1-2 cents; Shropshire ewe, 24 cents; Suffolk and Shropshire hog and ewe, 24 cents; Shropshire and half-bred, 23 3-4 cents; Oxford and Shropshire, with 5 per cent longwool, 24 cents; Blackfaced hog, 22 1-2 cents; Longwool hog, 20 3-4 cents; Masham hog and ewe, 19 cents; half-bred ewe, 23 3-4 cents; two-thirds Shropshire ewe, 24 cents; Longwool ewe, 19 1-4 cents; half-bred Cheviot and Leicester, 21 cents; half-bred Leicester hog and ewe, 18 1-2 cents; Shropshire hog and ewe, 24 cents; Shropshire ewe,

24 cents; half-bred Hampshire, 23 1-4 cents; Longwool hog and ewe, 20 1-2 cents; Oxford and Masham ewe, 21 cents; Longwool hog and ewe, 20 3-4 cents; Oxford Down hog and ewe, 23 3-4 cents; Masham hog, 19 cents; Masham and Scotch, 18 1-2 cents; Masham ewe, 16 3-4 cents; two-thirds Shropshire hog, 24 1-2 cents; half-bred and Lincoln unwashed, 17 cents; Shropshire hog and ewe, 24 1-4 cents; unwashed half-bred and Longwool ewe, 16 cents.

The very superior character of the wool grown in the Ashby-de-la-Zouch district always attracts a good attendance and keen competition at the annual sale. The wool shown was of great excellence generally, and the 10,000 fleeces offered by Messrs. German & German all changed hands at slightly higher prices. There was very keen bidding for the best lots, and Yorkshire buyers obtained the bulk, but some of the lots were so dear that certain buyers practically stood out of competition. A good deal of the wool changing hands in this district is for export to America and to set up the stocks of merchants which were cleared out three months ago at much lower rates. All the best lots of Shropshire made 12d to 12 1-4d per pound. The following are typical transactions: Shropshire three-fourth hog, 12 1-2d per pound; half-bred hog, 12 1-4d; two-third Shropshire ewe, 12 1-4d; Shropshire ewe, 11 3-4d; Shropshire ewe, 11 1-4d; Shropshire ewe, 10d, and Shropshire hog, 11 3-4d.

At Colchester.

The wool offered was in good condition. All the wool was quickly sold at prices a shade dearer than at Diss. Down tegs made 12d to 12 1-2d; Down ewes, 11 3-4d to 12 1-4d; half-breds, 11 1-4; greasy, 8 1-2 to 9 1-2d.

Another report says 30,000 fleeces were pitched in 200 lots, all of which were sold. Competition was exceptionally keen, and prices obtained were on the whole a farthing higher than last year. The top price for washed was 13 1-4 for Southdown hogget. The top price for unwashed was 9 3-4d for Southdown ewe. Other best prices for washed included: Blackfaced hogget 12 3-4d (two lots 13d), half-bred Southdown hogget 12 3-4d, blackfaced hogget (eight lots) 12d, Southdown

ewe (two lots) 12 1-2d, blackfaced ewe (seven lots) 12 1-4d, blackfaced hogget (six lots) 12 1-4d, ditto (six lots) 12d, blackfaced ewe (seven lots) 12d, Hampshire Down hogget and ewe 12d. The best prices for unwashed were: Southdown ewe and hogget 9 1-2d, blackfaced ewe 9 1-2d, blackfaced ewe (eleven lots) 9 1-4d, blackfaced hogget (three lots) 9 1-4d, Dorset ewe 9d, half-bred hogget 9d, blackfaced hogget (fourteen lots) 9d, blackfaced ewe (twenty lots) 9d.

American orders are responsible for the advancing prices paid for Downs.

TRAFFIC VIA TEHUANTEPEC ROUTE.

There was a great increase in traffic over the Tehautepec route (Tehautepec National Railway) in the last fiscal year. The following are the figures in metric tons (2,204.6 pounds each), compared with the previous fiscal year ended June 30, 1910:

Transshipments	1909-10 Tons.	1910-11 Tons.
Salina Cruz to Puerto Mexico	366,826	473,888
Puerto Mexico to Salina Cruz	265,046	445,202
Total	631,872	924,090

The increase in the movement of merchandise from west to east was 46 per cent and from east to west 70 per cent. The calendar year 1911, for which official figures are not yet available, will show that the increase continues and the total transshipments for the year will run considerably above 1,000,000 metric tons.

The bulk of this traffic arises from the freight brought to Salina Cruz and Puerto Mexico by the vessels of the American-Hawaiian Steamship Company. It is understood that this company has given definite notice to the Tehautepec National Railway of its intention to use the Panama Canal when the same is ready for business. The effect of the withdrawal of this fine fleet of American freighters from this Tehautepec route will be felt reaching so far as concerns this isthmus.—*Consular Reports.*

We again urge every wool grower to obtain a new subscriber for this paper. Some of them are helping it along, others are not doing their full share.

The Pure Angora Goat

By Hon J. E. McCarty, Dublin, Texas

IN VIEW of the fact that so many honorable and responsible buck breeders are advertising the Pure Blooded Angora Bucks for sale some of the readers of this article will be astonished to have me tell them that in my opinion there is not a pure blooded angora goat in America. I hardly think any well posted Angora goat raiser will take issue with me upon this assertion. No doubt the readers of this article think that I am accusing the Angora breeders of America with dishonest methods, and these same readers will think that I have also been a party to these same dishonest methods when I say that I have been guilty of the same thing. When you have read what I have to say you will not think so. The present up-to-date Angora goat has been built up to what it should have been more than what it was. This method of building up has been by crossing the Angora goat upon the common short haired goat. There were two objects to be attained in making this cross; one was to get numbers the Angora being limited in number, and the other object was to build up a larger, healthier, stronger and heavier shearing goat.

This has been accomplished and so universal was this crossing going on that I hold the opinion, shared by all or at least most all men well posted upon this question, that we have entirely bred out all the pure breeds until no more are left. Not only is it a fact that we have no more left; it is further true that the absolutely pure breed Angora would not be desirable because what we have built up is better. It is not true that all the cross breeds are better—I mean to say the highest and best of the cross breeds are better. Should you go to the pens of any man who has a reputation for Angora goats and ask him if his goats are the pure breed Angora and he would tell you "yes." He would do this because he would have no time to explain and even if he should explain likely you would not understand and if you did understand you might not believe what he said. He would say "yes" because the fact that all responsible breeders alluded to that

class of Angora as a pure breed. It is so universally done by all that custom would warrant him in saying "yes." All well informed breeders would allude to a goat of such fine qualities as a pure breed Angora, yet while it may have all the qualities of the pure breed and then some more, strictly speaking it would not be a pure breed Angora. When I say it may have all the qualities of the pure breed and then some, I mean that it has mohair equal to the pure breed and when I say "then some" I mean it would have a larger carcass, giving greater shearing surface, therefore would yield more mohair, that in addition to being larger it has the hardiness, largely, of the common goat, thereby being the healthier and stronger. In other words, the breeders by a number of years painstaking and select breeding have crossed the pure Angora on the common short haired goat until they have attained to a goat with the good qualities of both. That is, they have bred the quality and greater quantity of the hair of the Angora on the common goat, yet retained its size, largely, and its health and strength. Therefore the pure bred Angora as alluded to to-day as the pure breed Angora, is not in fact the pure breed Angora as originally imported, but rather an Angora that has been by years and years of patient toil and intelligent breeding built up to a certain standard that would entitle it to be classed by expert breeders to have that term, pure breed, applied to it. Now some of you beginners, don't you jump at the idea that you will get a few of the common goats and a good Angora buck and that you will build up a fine pure breed flock in a few years. You will be surprised when I tell you that some of the Angora goat breeders commenced this about seventy years ago and that their sons were raised and educated in the business, graduated at it, so to speak, and they have now put in the best part of their lives at the work, commencing where the father left off. They have attained to a higher standard than their fathers and their sons will attain to a higher standard than they. I commenced the business in

1901, about eleven years ago, with what I thought then a very fine Angora goat, and which was fair for the time, and I have bought the best bucks that money could buy and I have applied intelligent breeding and so well and favorably known is my flock that I ship bucks to almost every State in the Union, yet I believe if I could live so long, that I could improve my stock for 100 years yet. Of course, after you have attained a certain state of perfection, your progress is then necessarily slower. After you have given about twelve years careful and intelligent study to the business you then begin to comprehend the vast possibilities of the industry.

Colonel Lower told me that he had been in the business and a careful student of the Angora goat for thirty-two years and that he learned something new every year. The difference between myself and Colonel Lower is that I learn four or five things new every year and some of these things cost me something. I graduated two or three times with Angora goats and about the time I had just finished in learning it all, I got hit hard with some new fact that I never dreamed of.

I have quit graduating in this line; my new hands upon the ranch do that, but I have got over it. I do one thing one year and maybe two or three years, and I think that is the idea, but the very next year that will not work at all. For instance, possibly we have had plenty of rains, fine pastoral conditions, goats all fat and I breed for a large per cent of Winter kids or very early Spring kids. Maybe the Winter is warm and open, our Winter rye, barley, oats and wheat affords a large amount of fine green pasture for the suckling nannies, besides feed is plenty and large quantities of dry grass in the pasture. You have a fine early Spring and the finest, most robust crop of kids, the best ever. You are elated and the Winter kid or early Spring kid is your hobby and theme. The next year the Summer and Fall rains are scarce and you go into the Winter with your goats a little thin, but

thinking that they will pick up all O. K. when the wheat, rye, barley, etc. get a few showers and give you Winter pasture. These rains never come and your Winter pasture fails you. The pasture on account of drouth has little or no Winter pasture and feed is scarce, hard to get and high. You attempt to get through on less feed than what you should. You meet with an exceedingly cold and wet Winter and as a result you are out all day and half the night bringing in frozen kids, trying to warm them to life around the fire and if you get some of them to come to life, possibly the mother, being poor and ill-fed, wont claim it, and you spend days chasing the mothers down, holding them while the kid gets the few drops of nourishment that is left and then you swear off from Winter kids—never again, you say. Did you ever go about the lot putting out feed while 1,800 head of hungry goats pressed against the fence on the outside eagerly looking at you waiting to have the gate opened so they could get to the feed and did you after finishing, step to the gate with whip in hand thinking to pop your whip and hold them back so they would come through orderly without jostling and crowding, and did you ever after about 1,000 head had trod upon your prostrate form and 100 head had stepped into your mouth as you were trying to bawl for help and after being pulled out by the hired hands, look around in a dazed condition and feebly ask if the cyclone had blown down any of the barns or houses?

Well, if you have not had any such experience, then you have not been initiated into the mysteries of the goat business.

Senator Bob Taylor tells about when a boy, going to a circus in Tennessee. Some of the old mountaineers, not having the price, concluded to slit a small hole into the canvas and to enjoy the circus with one eye. A policeman on the inside, seeing their noses pressed against the canvas and the one eye at the hole went along on the inside and gave the noses a whack with his club. One old raw boned mountaineer getting such a whack fell backwards, blood spurting from his proboscis, and jumped to his feet and asked if the lightning had killed many on the inside when it struck the tent.

Sheep in Pennsylvania

To the Editor:

In traveling over Pennsylvania one is struck by the absence of sheep. Throughout the better farming portions of the State you may travel for twenty miles without seeing a sheep. So scarce are they that country butchers no longer make arrangements to slaughter such as are produced, depending for their supply upon the Philadelphia markets.

Years ago Pennsylvania was a great sheep state, that is nearly every farmer kept a few. In the 70's and 80's the sheep and the steer consumed the bulk of Pennsylvania's crop of forage, but today the dairy cow has displaced them both.

You often hear it asked why has the sheep been displaced. Some say the free wool days of '94 did it. This, of course, had its effect, but the farmer was quitting the sheep even before Cleveland's last election. The truth is that the dairy cow drove the sheep from thousands of farms because she has been more profitable. Then the cur dog did its share toward reducing the sheep through the fear which it created in the minds of the owner which in many instances was decidedly greater than the actual damage sustained.

Pennsylvania's wool crop was once important and it is yet, especially from the standpoint of quality. In the production of merino wool of extreme fineness and strength, it is of greater value than any Australian wool and only West Virginia and Ohio rank with Pennsylvania in the production of this class of wool. Of course, our finest wool was never produced in the best farming districts of the State. It came from the hill lands of southwestern Pennsylvania where it could be produced to-day in enormous quantities if confidence in sheep husbandry could be restored. The bulk of the sheep in Pennsylvania today are in this part of the State. On account of the lands being hilly and not overly fertile they are rather low in price. In this district general farming and especially up-to-date dairy farming is not practiced so the sheep will find a resting place there for many years to come.

Such sheep as are found in the bal-

ance of Pennsylvania are generally in the hands of rich men who own them as a matter of sentiment, taking a pride in the beauty and uniqueness of their appearance. However, these isolated flocks are creating an interest in the breed and we now see an occasional farmer possessing himself of a few pure bred sheep of the mutton type.

Pennsylvania needs sheep and needs them badly. The rain fall is great and the crop of weeds abundant. Nothing exists that equals the sheep as a weed destroyer. The weed problem on many of our farms is a pressing one. Old sheep farms that a few years ago were free from weeds are today overgrown with them. Fence corners are no longer clean and the neatness of many of these old sheep farms has disappeared and the owner has no longer an envied reputation for neatness as to his farm's appearance. Another point now generally conceded by those who used to keep sheep is that the sheep exerts a decided improvement in the quality and quantity of grass. They seem to thicken it up and make it finer and more palatable to other classes of live stock. Rank, coarse grass was never nutritious and it remained for the sheep to convert it into a more useful and available form. There are those who claim that they can tell by the quality of grass whether or not it has been grazed by sheep.

You may ask will the sheep come back to Pennsylvania? Yes, the dairy cow which displaced the sheep is now displacing herself even though she can be kept at a profit. Dairying is disagreeable, dirty work and dairy labor is becoming very scarce. He that keeps cows must work early and late in fact, he is never free from work or from the odor of the cow barn. This makes labor scarce and dear. The milking machine was invented to obviate this difficulty but it has not been much of a success and probably never will be. Then again, the sanitary requirements that must be complied with in order to sell milk in the larger cities has disqualified many Pennsylvania farmers from the production of high grade milk. In order to comply with these new re-

quirements new barns and milk houses would in many instances have to be constructed entailing great expense upon the owners. Many of these owners do not feel disposed to take this step and therefore they are turning to something other than the cow as a source of profit. Then again, a great deal of tuberculosis exists among the dairy cows of Pennsylvania and farmers have dispaired of ever eradicating the disease. This has been a highly discouraging feature of the dairy business. These features, together with the scarcity of labor, are driving very many Pennsylvania farmers from the dairy business. Many will take up steer feeding. A few will go back to the sheep; others will take up soil robbery by selling everything in the line of hay

and grain produced upon the farms.

We need the sheep in Pennsylvania, not only for its beneficent influence upon the soil, but on account of the supply of mutton. Years ago when the farmer kept sheep he killed a mutton every few days. He sold a part of this to his neighbor and in turn bought from his neighbor. A dressed carcass being small, a quantity could always be kept without ice until it was consumed, thereby the sheep furnished our farmer with a cheap and nutritious meat food. He could not slaughter a steer or a hog, for the bulk of the carcass made the preservation of the meat impossible during the warm days of the summer months, therefore if he was to have meat, it must either be furnished in the form of dressed mutton or else be

purchased from the butcher shop at high prices.

It would seem that we have room for several million sheep in Pennsylvania to clean up the rubbish and trash around our farms and help keep down the price of meat. It, however, may be years before we have it for things move slowly in Pennsylvania, its stock of people being slow to take up new ideas. If the tariff upon wool can be settled so as to afford the wool grower a fair protection and then leave the matter alone definitely, a good many of our farmers will go back to the sheep business on account of the desirable labor which it furnishes together with the profound benefits it confers upon the soil.

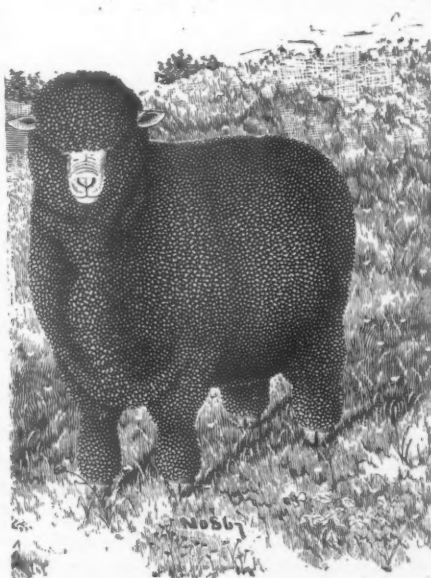
ROBT. JACOBS.

Origin and Development of the Delaine-Merino Sheep

THE breeders of that particular family of Merinos known as Delaines, originated from one of Colonel Humphrey's best importations, being one that he retained for his own use in the production of wool for the wool mills, that he was interested in. Located in Rhode Island, from there this special importation of high class Merinos was driven across Pennsylvania into Eastern Ohio, where they were retained in one flock, in partnership and under the charge of an Ohio man for several years. There they rapidly improved the native sheep of the country. After some years the partnership ceased and Mr. Humphrey's share of the flock was driven back across Pennsylvania to Rhode Island. It was upon their return trip that the celebrated Berry flock of Washington County was started from the purchase of the Humphrey Merinos. This purchase being the only one of special note, falling into the hands of breeders, who improved the weight of fleece and retained their original fleece character, refraining from encouraging any corrugation in the skin, from the belief that the true, even fiber could not be produced on the skin that was corrugated, in such a way as not to receive the nourishment as that between the ridges. This family of Merinos gained their great notoriety in the

By S. M. CLEAVER, *Sec. American and Delaine-Merino Record Ass'n.*

hands of two breeders that deserve very special mention—the Dickisons and Berrys. The Dickison Merino



A TYPICAL HIGH-BRED DELAINE-MERINO EWE.

took up the name of its improver and the Berry Merino was called Black Top, taken from their surface color. It was through the intelligence of

these great breeders in the production of a fleece of the highest quality, as shown by its even fiber being of one character, commanding a higher market value, that placed Ohio and Pennsylvania above any other State in the Union for quality of fleece. The intelligence required to bring up the weight of fleece without changing its former trueness of fiber, was much greater than to produce even a greater weight where a fleece is made to contain a dozen different grades of fiber from the many variations brought about by the highly corrugated skin. In addition to bringing fleece up to a fairly satisfactory weight coupled with the elements that make fleece of the most intrinsic value, fine, even and highly crimped and trueness of fiber, a thin, free flowing oil of the very highest quality in protection of both fleece and sheep. Oil is of special value in the production of Merino wool. We find that our strongest fiber is always highly saturated with oil. A dry fiber the reverse, not having the strength or the quality of fiber. No breeders of Merinos have more carefully guarded or kept the original Merino blood purer than the Berrys of Washington County, Pennsylvania, for a period of nearly seventy years. The Dickison part of the Humphrey importation became scattered into the

hands of other breeders who originated the Dickison Delaine register that was conducted for some years by the late H. G. McDowell. The Berry breeders organized a register for the keeping of their blood lines called the Black Top Register. The original blood of these two associations were identically the same. They both increased the weight of fleece, the length of staple and the size of the sheep from what it was originally found. This class of breeding has made Pennsylvania and Ohio famous for their wool production and from these great flocks, sheep have been shipped for the improvement of other flocks all over the United States. They are recognized as a practical, field sheep. They do not shear so many pounds of wool as the wrinkled Merinos, and do not so rapidly bring up the weight of fleece, when mated with the natives or light shearing sheep of the country. Neither do they produce quite as strong a fiber of wool as the highly bred, wrinkly Merinos, but their fleece has a more even grade of wool and is much sought after by the manufacturers.

We need new members for this Association and it is your duty to help get them. The dues to owners of over 200 sheep are \$5 per year, and to owners of 200 or less, \$1 per year. This also pays your subscription to THE NATIONAL WOOL GROWER.

If you have something to sell, or wish to purchase something, make your wants known through the advertising pages of THE NATIONAL WOOL GROWER. This will mean a satisfied customer.

The wool market is now in the hands of the American wool grower. He can make it high or low according to his liking; never before has he had a similar opportunity.

Nothing will happen that can reduce the price of wool for nearly two years and may be not then. The chances are that we will have a tariff upon wool for many years to come.

We are always anxious to obtain photographs of sheep or scenes that would be of interest to our wool growers. If you have such, please send them in.

Leasing Public Lands

To the Editor:

In the March issue of THE WOOL GROWER I read a copy of a bill pending in Congress which provided for the leasing of our public range lands. I understand the Committee having this bill in charge has decided to make no recommendation to Congress upon it at this time. This should please the stock men, for the proposed bill is not a good one.

I note that while this law provides for local boards to assist in leasing our range lands, that in the end the final authority rests with the Secretary of Agriculture. He would be the whole thing when it came to a show-down, under the proposed bill. This is not to be tolerated in any leasing law. If leasing is to be of benefit to the stock men, final authority in matters of dispute must rest with the local boards created with an understanding of the local needs. Such boards would be entirely more competent judges of the conditions affecting the range and would insure a more equitable and useful division of its benefits than could the Secretary of Agriculture or any outside interest.

Under the proposed law, I think the Secretary of Agriculture would have full authority to not only state the number, but the kind of live stock that could be run on leased land. This would be a rank injustice that would destroy a man's right to engage in such business as he might choose. No stock man could submit to this. Any effort to divide the leased range between cattle, sheep and horses would result in a protracted confusion and eternal dissension caused by the innumerable injustices which would be worked on the private individuals. If the range is to be leased, the man so leasing must have the absolute right to determine the kind of animals that he will there graze. One year it may be sheep, the next year cattle, but the fellow who puts up the money for the land and stock will be the best judge of which it should be.

Undoubtedly some system of range control is not only desirable, but seems inevitable if the main use of the remaining public domain is to be

served. I do not mean by this that the sheep and cattle man will destroy the public range, but I do mean that the so-called dry land farmer is plowing up millions of acres of excellent grazing land that never can be made into profitable agricultural lands. Land that is suitable for farming by all means should be farmed for it will return a greater profit than as grazing land and in the end this should be the measure of the use to which our lands are to be put. However, we all know of large tracts of range that have been plowed up that never can be made profitable wheat lands, but their grazing value has been destroyed. It is against this class that a lease law would be most effective and it is this class that we need protection against most at the present time.

It is nothing less than a crime to allow these innocent home builders to be brought on to much of the Western prairie under the fake promises held out to them by the railroads and land speculators. They have been assured that all this unclaimed land is suitable for wheat farming under the dry land process and they have no way of learning the truth until they have plowed up such land and destroyed its grazing uses. When a range is once plowed up it will not be useful again during a decade as a grazing proposition. This we all understand and the man who plows it up without making it a useful agricultural venture has really destroyed our public land.

If we could have a lease law passed that would establish grazing districts where at least 50 per cent of the users of the range were favorable to it; where the final authority rested in the hands of a non-partisan local board; where the lease extended for a term of not less than ten years; where 50 per cent of the income from the lease went to the local county for road construction; where the lessee could have control of the number and kind of stock to be maintained, I think it would be of decided benefit to all classes of live stock producers and I further think a great majority of them favor such a law.

A general impression is that most

sheep men are against leasing. I do not believe this to be true and I know that many favor a lease law. What they do object to is a lease law drawn for the benefit of the cattle men alone, this however is the sheep man's fault, for he has been satisfied in the past with merely opposing any and all kinds of a lease law instead of using his influence to help frame and enact a law that would protect his interests the same as the other fellow's interests.

It will not be many years before the public is going to demand a leased public domain just as they now demand a forest reserve. If the sheep men are wise we will direct our future work not toward preventing a lease law, but toward getting as good a law as can be gotten. I fear that if a lease law be passed in the face of the opposition of the wool growers, that such a law will not contain many of the desirable provisions that are needed to protect their particular industry. This would only be the natural outcome of continued opposition.

Those who object to a lease law need not be seriously alarmed, for it would require many years to get it in operation over any great territory and if it is the right kind of a law it can never be placed in operation without the consent of those who are going to be affected by it, therefore I think the interests of the users of the range will be best served by all getting together and framing a law that will be fair to all interests.

C. X. JENES.

MERCERIZATION OF WOOL.

A chemical process, somewhat similar to the mercerization of cotton, is now being successfully applied in Bar-men to Bradford-spun worsted yarns. The yarn is entered not into caustic alkali, as with the mercerization of cotton, but into a bath of bisulphite of soda, a chemical which exerts a shrinking action upon wool. This action is resisted by mechanical tension, and the process is continued for some five minutes at a high temperature, until the wool assumes a gelatinous or rubber-like elasticity. The yarn is removed into a weak mineral acid solution, boiled under relaxing tension for an hour, and is finally rinsed and

dried. The resemblance to mercerization is thus close in detail, and is similar also in its effects. The elongation is very much greater, amounting to 33 per cent, so that the yarn which goes into the process as 26s 2-ply comes out of it as something near 35s 2-ply. Mercerizing enhances the strength of cotton, and "bembergizing" does not perceptibly impair the strength of wool. The treatment leaves the yarn in possession of a quite creditable handle and brings forth a luster yarn out of nonlustrous wool. An English patent for the process was taken out in 1910 by Dr. Emil Elsaesser, of Langefeld, Westphalia, but, so far as can be learned, the process has not been utilized commercially as yet in England.—*Consular Report*.

THE WOOL INDUSTRY IN RUSSIA.

The Times publishes the following: "As will be seen from the values of wool imports during the last three years, foreign wool finds a regular and increasing market in Russia:

	1908	1909	1910
Spun, embd wool, etc.	2,833,900	3,926,900	4,821,300
Raw wool, etc.	1,579,700	1,879,500	2,264,000

"It may be prophesied that in the future Russian mills will use imported wool mainly, seeing that in Central and Southern Russia cereal growing is taking the place of sheep farming, and, to a lesser degree, the same is being manifested in the Caucasus and the Siberian Steppes. The following table shows in round figures the falling off of wool production:

District	1908 pounds	1909 pounds
Caucasia	33,480,000	29,880,000
Siberia	5,760,000	5,400,000
South Russia	1,800,000	1,180,000
Volga Provinces ..	900,000	720,000
Poland	3,960,000	2,736,000

"This decrease in production principally results from the diminution of flocks, the total of which during the last decade dropped from 8,000,000 to 5,000,000 head. As agriculture increased in Russia so pasturage decreased, bringing about shortage of wool and rises in price, which latter, coinciding with the general cheapening of wool on the world's markets incident on the rearing of merinos in Australia and Argentina, let in foreign wool, so that Russian farmers had to face the alternative of intro-

ducing modern methods into the old pastoral system or of taking up a more remunerative branch of farming. Many chose the latter, and some have tried to carry on the old migratory pastoral system by transporting their flocks to the Siberian Steppes, but this is only putting off the final hour when the increasing colonization of Siberia and Central Asia will drive them further afield. The true solution of the difficulty lies in the adoption of modern methods of breeding and of giving as much attention to the wool products as to the mutton.

"Each year Russian mills are doing larger business; their wool consumption, valued at £7,000,000 in 1890 rose in a decade to £16,000,000, and to £20,000,000 in 1910. Yet the Russian sheep farmer, by his conservative methods, places the Russian mill owner under growing dependence on the foreigner. At the moment there seems nothing but a rapid increase in wool imports to be expected, unless Russian sheep farmers decide to remodel their methods, and as this is not improbable, there should be splendid openings to foreign breeders capable of instructing on modern scientific methods of sheep raising."

This paper invites communications from its readers. Our pages are open for a discussion of any subject of interest to the wool growers of our country. You are invited to contribute.

Tariff agitation is dying out. The people have at last learned that the tariff has been their true friend and has not been responsible for all high prices. You can not fool all the people all the time.

If you do not read this paper, please hand it to your herder. He may find it interesting and profitable. Or, better still, send in your herder's name as a new subscriber.

We do not want any boom in the sheep business; such things are always highly expensive in the end. What we need is steady, moderate prices with no high spots.

Save a file of *The NATIONAL WOOL GROWER*. They will prove interesting reading in years to come and will always be a reliable reference. Each issue will be better.

The Cotswold Sheep

By D. MCRAE, Ontario, Canada.

ONE of the south midland counties of England, touching the Bristol Channel and including the vale of Severn is Gloucester. On one side Gloucestershire touches historic Oxford and on the other Hereford, the original home of the well known whitefaced breed of beef cattle. Gloucester, Oxford and Hereford are the Shires whence came the Cotswold sheep—one of the old and probably by far the oldest of English breeds of sheep. Running diagonally through Gloucestershire is a range of upland hills named the Cotswold Hills and it has been generally supposed that from this range of hills this breed of sheep get their name. One writer has pointed out that it is much more likely that the hills get their name from the sheep. That such names are descriptive of the locality and that the hills with the sheep cotes upon them were rightly named the Cotteswolde Hills—Wolde is the old English name for a tract of upland undulating or gently sloping. Cote, a shelter for sheep, a shed or covered building. The fold was a pen or enclosure uncovered.—The Cote a little house, a place of shelter protecting the sheep from storms and also from wild animals. The word cote now almost obsolete is found in the English Bible—2d Chronicles 32-28 mentions "Cotes for flocks," and 1st Samuel 24-3 "And he came to the sheep cotes by the way." The hills no doubt got their name Cotteswolde (the old spelling) from the sheep cotes erected upon them in the early days and the sheep thus specially protected, because of their great value as wool producers, became known as Cotswold sheep.

There is no record of sheep in Britain before the Roman Era. There is little doubt that the Angles and other tribes in their migration from the east brought with them the animal so precious to the early eastern people. So useful as a giver of food and clothing, sheep were a great source of

wealth in patriarchal days. Crossing Europe as our forefathers did with their families, flocks and herds, there is every probability that sheep were brought to the far off western isles with them. When the Romans came they improved the agriculture of Britain and introduced a system of tillage which made better conditions for sheep husbandry. Tacitus, the Roman historian, A. D. 75-120, mentions the manufacture of woollen cloth at Cirencester in Gloucestershire and that the Fullers there were allowed to use the road sides for drying their cloth. In the second century the Ro-

might manufacture at Florence certain cloth of gold for his private use. In 1468 King Edward IV presented John, king of Aragon, Spain, twenty Cotswold ewes and four rams and there is yet in Spain a breed of long wooled sheep not unlike what the old Cotswold breed may have been.

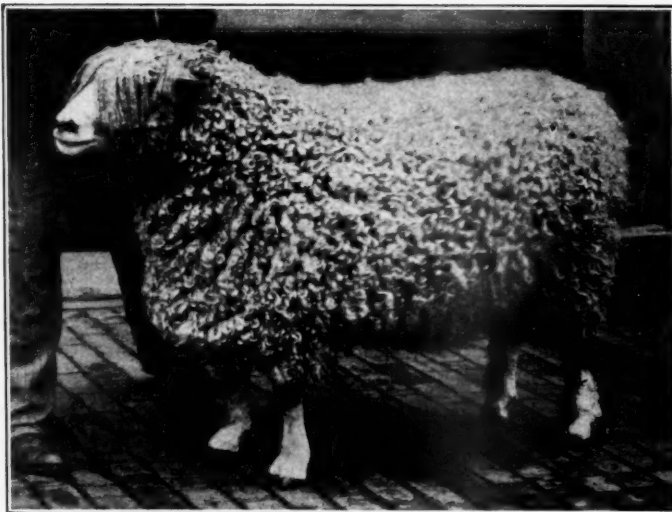
The Old Breed.

In the days of Queen Elizabeth the Cotswold sheep are described as "long wooled and large boned"—and in those days they had attained a position unrivaled for the production of wool—a long, strong, staple wool. They are said by another writer to be large framed, coarse and very hardy and accustomed to roam far for the short sweet herbage which grows in their native limestone hills. The Cotswolds of these old days are described as tall and long bodied and somewhat fat sided with full hind quarters, yielding a long heavy fleece. The primitive Cotswolds were great wool growers. The old poets wrote about "our Cotswold's wealthy locks." Agricultural writers said: "If the farmer expects to derive his chief profit from the wool, he will look to the primitive Cotswolds," and Youatt says: "Changed only with the change of sheep farming, the Cotswold sheep are what they have been from time immemorial." The

breed was large and heavy in the carcass and full in the fleece, a combination of a good and useful form but leggy and deficient on the underline.

The Modern Cotswold.

The modern Cotswold is remarkable for symmetry, early maturity and weight. This has been brought about by very careful selections in breeding. The breed has never had any great and wealthy patrons but has been handled by intelligent and enterprising farmers who deserve a great deal of credit for their work. Among the breeders in England who have been to the front in work for the breed may be mentioned Gillet and



COTSWOLD RAM. CHICAGO INTERNATIONAL, 1911.
F. W. HARDING, WAUKESHA, WISCONSIN.

mans had a large trade in the manufacture of woollen cloth in Gloucestershire made from the wool of the sheep grazed in the Cotswold Hills. Gloucester was an important settlement with a large manufacturing trade when London was but a burgh. In the time of the Saxons mention is made of cloth mills at Gloucester and there are records of the king and his nobles visiting the mills and being presented with cloth made there. In 1425, during the reign of Henry VI, an act was passed to prohibit the export of sheep. The king of Portugal applied to the king of England for permission to export sixty sacks of Cotswold wool in order that he

Swanwick of Cirencester, Garne of Aldworth, and Lane of Broadfield, all in Gloucestershire and in Norfolk. Very many animals in the best American flocks trace to animals from the flocks of these breeders. The modern Cotswold is an admirable specimen of physical development. High standing with a lofty carriage and an abundant fleece of pure white wavy wool, they have a fine appearance and are a grand show sheep. Then as to size Camden says: "The Cotswolds are the largest breed of domestic sheep in the world." The present fashion is for moderately light weights which can be made by Cotswold lambs at an early age, but in former years, when heavy weights were wanted, wethers have made 400 to 450 pounds live weight and old ewes are quoted in England as going seventy pounds per quarter or 280 pounds dressed weight. A. H. Sanders says: "Among Americans the best known and most popular variety of long wool sheep is the Cotswold."

Points of Cotswold.

The head of the Cotswold ram should be masculine in character, broad between the eyes, moderately fine in the ewe and well covered on the crown with long, lustrous wool. The face may be either white or white mixed with grey—the legs of the same color, nostrils wide and open, nose dark, eyes prominent and mild, ears broad, long, moderately thin and covered with short hair. The top-knot of wool between the eyes should be ample. Light tufts and bare heads are very objectionable. Formerly an ample tuft was all that was called for, but modern taste favors a wooly face, though that was not characteristic of the older breeds. The effect of eyes and nose covered with long wool is striking and adds to the style. As to the color of the hair on face and legs, white is now the most common but grey is not objectionable and is preferred by many, and small black spots are not unknown. The coloring should be grey-black and white mixed. Brown is not wanted, though dappled brown is permissible but not specially favored. The neck should be of moderate length, rather shorter in the ram and well set on the shoulders, rather thicker at the base. If the neck be of moderate length and the head carried high it adds grandeur

to the general appearance. The old rule was that "a ram should carry his head so as to be able to look over a hurdle." The body should be long, level and broad along the back with ribs well sprung, shoulders broad and full, nicely fitted and well covered without hollows in top. Strong and square brisket fairly prominent. Fore legs upright, wide apart with heavy bone, mutton to the knee and wool to the fetlock is preferred. Hair on the legs may be grey but wool should be white. Fore flank full and belly should be straight on underline though the older specimens rather lacked a good underline. The modern underline is much improved. Back broad, well covered over the kidneys. Hind quarters square, full and broad—thighs moderately full, leg of mutton well developed with lean meat abundant and the mutton to the hock, which should stand square neither in nor out.

Twist deep, wide and full. The whole body covered with long, lustrous white combing wool without kempy hairs.

The belly and under parts well covered with wool. Cotswolds are great wool growers. The staple of the wool should be strong and long—eight to ten inches is usual. Well fed flocks have averaged sixteen pounds per fleece.

Characteristics.

The Cotswold is one of the most valuable breeds known at the present time. They combine mutton form, weight of carcass and heavy fleece. They are very prolific and the ewes make good mothers. They need some care while lambing but when the lambs are once up and well filled they are hardy and grow rapidly under good management. Cotswolds are widely distributed and favorably known in almost all parts of the United States and Canada, and they do specially well everywhere throughout Canada, where they are the predominant breed. Almost nine-tenths of the Canadian wool clip is long combing, which has all more or less of a Cotswold basis. The same may be said of the different States of the Union. Cotswolds have given good satisfaction wherever they have had a fair and careful trial, and are to-day the leading long wool breed in America.

The outrageously high prices of meat is breeding a strong sentiment in favor of "free meats." Meat has gone up 10 cents per pound, but as the tariff is only 11-2 cents per pound it has not been responsible for the raise.

Don't worry about the tariff on wool. When it is finally settled the wool grower will get a square deal this time and that is all he has a right to expect. In the meantime the old tariff, rotten as it is, still stands.

A lot of wool growers are not doing their share toward supporting this Association. It has done more work for them this year than has been done in any five years and we are entitled to their support.

Cheyenne is already making preparations to entertain our Convention next January. It will be held in the heart of the greatest sheep country in America; this of itself insures a mighty meeting.

ARCATA RAMBOUILLETS

First Prize Flock for the Year 1911 at International Exposition, 1911; at Ohio State Fair; at New York State Fair. Choice Stock for sale; Prices Reasonable.

L. W. SHAW, Pottersburg, Ohio

Paradise Dell

Farm

Breeders of Pure Bred

Hampshire

Sheep

Will have for the fall trade 15 registered, two-year-old rams; 29 yearlings, and 6 ram lambs. Also a few one to two-year-old ewes.

E. S. Taliaferro, Prop.
Russell, Kansas.

BLACK LEAF 40

A Concentrated Solution of
NICOTINE SULPHATE,
Guaranteed to Contain Not Less
Than 40 PER CENT NICO-
TINE, By Weight.

Nicotine in the form of "sulphate" does not evaporate at ordinary temperatures, whereas "Free" Nicotine does evaporate. Therefore, "Black Leaf 40" is particularly desirable for sheep dipping purposes, wherein the lasting properties of the dip are so important.

"Black Leaf 40" has better "lasting" properties than has even our "Black Leaf" Extract. Is about fourteen times stronger, yet with only about one-twelfth the shipping weight. This means a big saving in handling—especially over rough roads. One case of ten 10½ pound tins may be carried in a buggy, gross weight only 150 pounds, yet producing 7,170 gallons of "Official" wash against sheep scab.

Owing to the large dilution, "Black Leaf 40" Does Not Stain nor Injure Wool.

"Black Leaf 40" is non-poisonous to sheep and goats at the Official Dilution.

"Black Leaf 40" is permitted for Official Dippings of Scabby Sheep—both under the United States Government and the State Regulations. No Sulphur is Required.

PRICE:

10½ lb. can, \$12.50—makes 717 gallons, containing "7-100 of 1 per cent Nicotine"

2½ lb. can, \$3.25—makes 170 gallons, containing "7-100 of 1 per cent Nicotine"

½ lb. can, \$0.85, makes 34 gallons, containing "7-100 of 1 per cent Nicotine"

These prices prevail at ALL Agencies in railroad towns throughout the United States.

If you cannot thus obtain "Black Leaf 40" send us P. O. Money Order and we will ship you by Express prepaid.

Manufactured by

**KENTUCKY TOBACCO
PRODUCT CO.**

INCORPORATED

Louisville, Ky., U. S. A.

Letter from the Attorneys of the National Wool Growers Association on the Wool Rate Case

We have been advised by Chairman Charles A. Prouty of the Interstate Commerce Commission that a further hearing in the wool case has been requested by some southern shippers, who claim that the prescribed minimum is too high, and it has been suggested that such a hearing be held at Denver in September, and possibly at some other point at which time the Commission will be asked to consider some additional aspects of the wool case. Among these items will be the question of loading and the minimum per car. He has been informed that in certain sections of the country there has been difficulty in loading up to the minimum suggested by the Commission in its decision.

Pursuants to your directions we have been giving this subject further consideration. On July 1st in accordance with previous arrangements our Mr. Johnson met Mr. Clyde B. Aitchison, Chairman of the Railroad Commission of Oregon, Mr. Earl, its engineer, J. H. Dobbin, President of the Oregon Wool Growers Association, and Mr. Hoke, its secretary, at Enterprise, Oregon, for the purpose of experimenting with a rectangular sack or bale in the belief that with a package of this form we can secure a heavier loading than with the standard sack.

In preparation for these investigations Mr. Dobbin, the aggressive and efficient president of the Oregon association, had made ample preparations. Mr. Aitchison had secured 100 standard sacks and had induced the bagging house to modify the sacks so as to give them a square base. Mr. Dobbin constructed a box in which sacks were placed to be filled. They were tramped in the usual way with the result that a rectangular package was produced about 20 inches square and about 6 feet 2 or 4 inches long. It was found that with the appliances we had these square sacks could not be packed as heavily as the wool was packed into the standard sacks. This was due in a measure to the fact that the box in which the

sack was placed did not permit stretching the sack and packing it as thoroughly as the standard sack, which hangs loose from the ring. Nevertheless we found that with the rectangular package there was much less loss of space in the car and a much heavier load could be obtained. We had a car 36 feet 6 inches and we placed in it 100 of the square packages containing approximately 34,000 pounds. We did not have any more of the square sacks, but there would have been room for 8 or 10 additional bags giving a loading of approximately 37,000 pounds.

The wools in the vicinity of Enterprise, Oregon, are quite heavy, although they are by no means so heavy as the wools along the Columbia river. It may also be said that this season's clip in the vicinity of Oregon is lighter in weight than the usual clip. It was the opinion of persons present that the wool which was used in filling this car was fairly typical of the great majority of Oregon wool, though of course it is somewhat heavier than the wools in other sections of the country. Making due allowance for the difference in the shrinkage of the wools, it seemed to us that there would probably be no wool which in a rectangular package could not readily be loaded to 24,000 pounds and a very large percentage of the wools could easily be loaded to the bale minimum of 32,000 pounds in a standard car.

The standard sacks were modified so as to be used for square packages by simply using two seams across the corners at the bottom of the sack. A number of photographs were taken showing both the rectangular packages and the standard sacks and the way in which they were loaded. These demonstrated that there was a considerable loss of space in using the standard sack, and that this space was practically all utilized when the wool was shipped packed in the rectangular packages.

It was found to be very difficult even with the rather heavy wools used on this occasion to obtain a density

in the package of nineteen pounds per cubic foot. This density was obtained in some packages, but not in others and in a general way it might be said that the density of the packages ranged from sixteen to twenty pounds per cubic foot. We concluded it would not be practicable to endeavor to fill either the standard sacks or the rectangular sacks with ordinary wool to a density of nineteen pounds per cubic foot without using some method of compression other than the ordinary tramping of the sack. We were also of the opinion that if it should be necessary to procure a density of nineteen pounds per cubic foot in order to secure the benefit of the bale rate it would not be difficult to devise and construct simple machinery which would be effective in giving the required compression. There are doubtless many wool growers who either from experience or with their natural mechanical ability will be able to design and construct at slight expense such machinery as will be adapted to this particular service. We have no doubt that when the matter is presented through the WOOL GROWER, numerous suggestions will be received from various sources, all which will tend to solve this problem. Our conclusions upon the matter are that it should not be necessary to require a density of nineteen pounds per cubic foot in order to secure the benefit of the baled rate. The lower baled rate is given entirely for the reason that a heavier loading is secured.

This is the ultimate and important fact. It does not depend so much upon the density of the individual package as it does upon the shape of the package. We think that the baled rate should apply whenever the shipper loads to a minimum of 32,000 pounds in a standard car and when the matter is again taken up by the Interstate Commerce Commission we expect to present the results of our investigations at Enterprise, Oregon, and ask for the elimination of the fifteen-pounds rule.

Your attention has already been called to the fact that the carriers have not complied with the suggestion of the Commission, as we view it, requiring the installment of fourth class rates west bound. To have done this would also have reduced the rates which are made upon a combination

on the Pacific Coast. The Interstate Commerce Commission has not made a definite order, but merely suggested what rates should be made effective and have left it to the carriers to work out the details. When the Interstate Commerce Commission meets again it is our intention to ask a specific order requiring fourth class rates for the west bound movement and requiring the carriers in the extreme western territory to use the fourth class Portland combination in framing their eastbound rates.

We have also taken definite steps along a line suggested by you and have prepared a complaint to be filed before the Railroad Commission of Oregon to require the carriers in the intrastate movement to apply fourth class rates between points in Oregon with lower rates where the loading reaches 32,000 pounds in a standard car. This complaint has not yet been filed as several other interested parties have expressed a desire to join with us. Among these are the Oregon Wool Growers Association, the Portland Chamber of Commerce and possibly one or two other associations. We expect to have this matter in shape for presentation in the near future and trust that the Oregon Railroad Commission will apply the same general rules to the westbound movement as have been suggested by the Interstate Commerce Commission in the eastbound movement. We feel that the tariff difficulties of the wool men are being speedily hammered into shape so that before another shipping season commences the rates and the prescribed minimum will give the growers substantially that to which they are entitled in the matter of transportation.

Very sincerely yours,
JOHNSON & HADDOCK,
Shoshone, Idaho, July 16, 1912.

If you want to store your wool where it will be free from all taxestry and get it into a Government bonded warehouse. The Government is in the wool storage business for the pleasure of it.

Our sheep and cattle feeders are not the only ones that received high prices during April. An Australian exchange quotes fat sheep in West Australia at 11 cents per pound and cattle at 10 1-2 cents.

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